DOCUMENT RESUME

ED 208 043 TM 810 745

AUTHOR	Spooner, Kendrick L.; Curtis, Douglas R.
TITLE	Impact Evaluation of the Area Vocational School Delivery System. Executive Summary (and) Technical Report.
INSTITUTION	Center for Education and Management, Inc., Greeley, Colo.
SPONS AGENCY	Colorado State Board for Community Colleges and Occupational Education, Denver.
PUB DATE	Sep 80
NOTE	238p.
EDRS PRICE	MF01/PC10 Plus Postage.
DESCRIPTORS	Administrator Attitudes; Advisory Committees; Counselor Attitudes; *Delivery Systems; Interviews; Postsecondary Education; *Program Evaluation; Questionnaires; *Regional Schools; Secondary Education; *Vocational Schools
IDENTIFIERS	*Colorado

ABSTRACT

The purposes of this study were to describe: (1) the structure, services, programs, problems, and other characteristics of area vocational schools; (2) the impact of services provided by the area vocational schools on students; and (3) the local school administrators' perceptions of the area vocational school system. It was found that communication and coordination between the cooperating schools and the area vocational school were adequate. Adult education programs were the weakest portion of most area vocational school delivery systems. Problems in serving districts in geographical isolation areas and areas with low population densities were also identified. Sixteen recommendations are provided as guides for implementing programs to assist area vocational schools. In summation, the students, administrators, and counselors from both the area vocational schools and cooperating districts report overall satisfaction with the area vocational school's ability to deliver quality vocational education at the secondary and post-secondary levels. (Author/BW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED208043

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

IMPACT EVALUATION OF THE AREA VOCATIONAL SCHOOL DELIVERY SYSTEM

executive summary

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

B. Barnes

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The project reported herein was conducted pursuant to a grant from the Colorado State Board for Community Colleges and Occupational Education. Contractors undertaking such projects are encouraged to express freely their professional judgments in the conduct of the project. Points of view or opinions stated do not therefore, necessarily represent the official position or policy of the State Board or its staff.

IMPACT EVALUATION OF THE AREA VOCATIONAL SCHOOL DELIVERY SYSTEM

Executive Summary

Dr. Kendrick L. Spooner, President
Mr. Doug R. Curtis, Research Associate

This project funded by:
THE STATE BOARD FOR COMMUNITY COLLEGES
AND OCCUPATIONAL EDUCATION

INTRODUCTION

One of the most promising developments in the recent history of vocational education is the area vocational school. The concept of a central vocational education facility supported by, and serving a number of local school systems became fully operational with the passage of the Vocational Act of 1963. The area vocational school, as other institutions, depends upon quality administration, supervision, communication, and a commitment to provide quality services to students.

In an effort to maintain and improve the quality of vocational education in Colorado, the State Board for Community Colleges and Occupational Education has funded a project to research the impact of the area vocational school delivery system. The following study was designed to address qualitative and quantitative factors affecting the delivery and the consequent impact of the area vocational school on cooperating schools' abilities to deliver vocational education. Three broad objectives were identified as the cornerstone for the investigation. These objectives are:

1. To describe the structure, services, programs, problems, and other characteristics of area vocational schools.

2. To describe the impact of services provided by the area vocational schools on students.

3. To describe the local school administrators' perceptions of the area vocational school system.

A preliminary step in conducting the impact evaluation was to develop a series of questions which would address each of the broad objectives. Data were collected and judgments made concerning each question. The summary, conclusions, and recommendations were then presented.

METHODOLOGY

Respondents and Data Sources

Primary respondents included administrators, counselors, instructors, and advisory committee members of both the area vocational schools and the local school districts.

Several data sources were used in the study:

(1) data currently available from the Colorado State Board for Community Colleges and Occupational Education's management information system data base,

(2) data currently available from the State Occupational Information Coordinating Committee data base, and

(3) data gathered by the questionnaire.

Data Gathering Processes

The data gathering process concerning each area vocational school and local school district included on-site structured interviews and formal questionnaires.

The State Board Planning Staff, Research Coordinating Unit Supervisor, and the Project Advisory Committee were given an opportunity to review the proposed research plan and provide input as to modifications in the types of data to be collected and the procedures to be used.

Development of Data Collection Instruments

Input for all data collection instruments and processes was provided by the Project Advisory Committee and RCU Supervisor. Also input for instrument development was obtained from literature reviews. All project questionnaires focused on ascertaining the perceptions and concerns of administrators, counselors, and instructors as to the impact of the area vocational school delivery system. The survey response rate was 72 percent.

RESULTS

In this section, an attempt has been made to bring together the three basic objectives of the research project and the corresponding research questions. The objectives of this study will first be stated; then followed by related research questions. A summary of the findings

and conclusions of each research question plus general recommendations are provided for the reader's consideration.

OBJECTIVE 1: TO DESCRIBE THE STRUCTURE, SERVICE, PROGRAMS, PROBLEMS, AND OTHER CHARACTERISTICS OF AREA VOCATIONAL SCHOOLS?

(1) What secondary schools are currently being served by each area vocational school?

Summary. The maps included in the technical report depict the schools being serviced by each of the designated area vocational schools in Colorado. Eighty-eight out of 175 local public schools were being served by an area vocational school system. The schools being served by an area vocational school reported that because of the conditions of existing cooperative arrangements, the local school district was better able to offer quality vocational education to its students. Fifty-six of the 175 local school districts responding to the questionnaire indicated that their local districts were not meeting the vocational needs of their students. Of these 56 districts, 20 schools were associated with an area vocational school. Some of the districts cited that distance was a major problem using the services of their area vocational school. The 26 schools which responded that they did not presently contract with an area vocational school and were not presently meeting the vocational education needs of their students, were in general, small rural schools. It appeared that few of these 26 schools were close enough to any one location to receive services through a traditional area vocational school delivery system.

Conclusions. Without exception, all area vocational schools surveyed were making serious and good-faith attempts to serve secondary programs in their area. However, there were a few designated area vocational schools that had a limited number of secondary students enrolled. There appeared to be a difference in commitment of the area vocational schools to the various levels of constituencies; adult, post-secondary, or secondary. Area vocational schools managed through an independent school district or BOCES seemed to have placed a higher priority on serving secondary students, where area vocational schools managed through community colleges seemed to have placed a higher priority on serving post-secondary students.

In general, area vocational schools that served the largest number of local schools were sponsored by community colleges. One reason for this was the locations of these area vocational schools. It also must be concluded that a large number of rural schools were not being served by area vocational schools. Major reasons many rural schools were not being served were cost and distance.

(2) *Under what type of organizational structure are the area vocational schools formed?*

Summary. There were several organizational structures observed. The most prevalent structure was the area vocational school offered through a junior or community college arrangement. These colleges were either part of the state system or locally financed and controlled. Other organizational structures were jointly owned facilities through a board of cooperative educational services, or an independently owned and operated area vocational school which provided services through contracting to other school districts in the surrounding area. Generally, the independently sponsored types of programs were offered by larger school districts and accommodated a few surrounding schools. They did not have a large number of schools participating in the area vocational school as was the case of some community college programs. Most of the community college secondary programs were organized as an independent administrative unit. As a rule, administrators at the area vocational school and local schools considered area vocational school programs to be secondary programs. In some instances, secondary and post-secondary students were mixed so that one instructor, during one class period would have both levels of students. In most cases, however, the secondary courses and students were segregated from the post-secondary courses and students. Furthermore, separate instructional staff were employed in several institutions.

Conclusions. The type of organizational structure appeared not to have a significant impact on the quality or amount of services offered to local school districts. It was found that a major determinant in the number of local schools participating in area vocational school programs was the distance from the local education agencies to the area vocational center. The majority of local schools participating in area vocational school programs were located within a 20 mile radius of the area vocational schools.

(3) *How does the area vocational school deliver services to local schools?*

Summary. Most area vocational schools operated through a quota system where a certain number of slots were assigned to each participating school district and it was the responsibility of that school district to fill the slots for each program. Once the school year began, any unused slots were reallocated to other schools so that classes would have full enrollment. Independent area vocational schools worked on a contract basis with other school districts. The cooperating school districts would buy a certain number of student FTEs based upon their needs.

In most independent area vocational school systems, students were enrolled from high schools within the district on a pre-enrollment basis. The programs at independent area vocational schools were treated as offerings in the local high school in the enrollment process.

In a BOCES operated school district, each school district involved appeared to be given a certain portion of the total student FTE and it was the school district's responsibility to allocate their student FTE to the various high schools within their district.

Conclusions. There are three types of delivery systems: (1) independent area vocational schools, (2) BOCES area vocational schools, and (3) community college area vocational schools. It appeared the method of enrollment by student name, as used by independent area vocational schools, created a problem of no-shows which many times caused under-enrollment in the various programs. On the other hand, with the community college and BOCES sponsored area vocational schools using a slot allocation method, there appeared to be no problems filling classes; the cooperating schools generally filled an unused slot with a student on a waiting list.

(4) *How many schools in the vicinity of the area vocational school are not taking advantage of the program?*

Summary. In the seven site visits conducted, very few schools were found which did not participate in the area vocational school program. Through the mailed survey, schools were identified that had

previously participated in an area vocational school program, but were not currently participating. The major reason for not participating was travel time; most of these schools were 60 to 70 miles away from the area vocational school facility. In one case, the school board of the district discontinued sending students to the area vocational school because of inadequate control of students while they were going to, and coming from, the area vocational school.

Conclusions. The area vocational school was seen as a viable means for offering programs to public schools within a 20 to 30 mile radius of the area vocational school; schools outside the 30 mile radius are less likely to participate.

(5) To what extent are advisory committees used?

Summary. Each area vocational school visited had an active advisory committee. In most cases, this advisory committee was developed for the secondary school programs, however in a few cases, an advisory committee for all levels of vocational education programs (secondary, post-secondary, and adult) was used.

Conclusions. It was found that area vocational schools adequately used their advisory committees for program review and improvement. Those advisory committee members surveyed seemed knowledgeable about the area vocational school programs and had hired graduates from these programs. Further, advisory committee members reported they felt the vocational programs at the area vocational schools were of good quality.

(6) What type of guidance, counseling, and career development services are provided by the area vocational schools?

Summary. In general, area vocational schools did not offer extensive guidance, counseling, or placement services to secondary students. There were some schools, however, that allocated resources to these services for secondary students. There were several area vocational schools that did not offer vocational guidance, counseling, or placement services to any of their students.

Conclusions. Guidance, counseling, and career development services appeared not to be a priority for many area vocational schools.

(7) *Does the area vocational school offer instruction through satellite programs?*

Summary. At least three area vocational schools in the state were identified as providing satellite programs. Only one of these schools was visited. Satellite programs offered by the area vocational school appeared to be a viable alternative for schools in remote rural areas.

Conclusions. It is the belief of the program evaluator that satellite programs may be a viable alternative for delivering vocational education programs to those schools in remote or isolated areas that currently are not participating in programs offered by an area vocational school.

(8) *Does the secondary area vocational school have separate facilities from the sponsoring agency?*

Summary. In some instances, where the program was sponsored by a community college, the secondary programs were isolated physically from the post-secondary programs. When independent school districts or BOCES sponsored the area vocational school, the vocational education facility was generally separated from other high schools within the district, but all levels (secondary, post-secondary, and adult) of students used one facility. This separation was such that the area vocational school had its own campus. In many of the community college programs, the facilities were shared by the secondary and post-secondary programs, however this was not always the case.

Conclusions. The separation of facilities from the sponsoring institution appeared to be tied to the type of governing structure for the institution and the availability of alternative facilities for the secondary area vocational school. In the instance of community colleges where facilities already exist for post-secondary programs, separate facilities were not available. In the independently sponsored or cooperatively sponsored vocational education program, separate

facilities were often constructed due to the lack of adequate existing facilities needed for offering specific vocational programs. In one instance, the facilities were shared among a number of local school districts although a community college managed the program. In this instance, there were tremendous logistical problems in transporting students to the various locations. Scheduling problems were also more severe.

(9) *To what extent are the problems at the area vocational school congruent with the supply/demand data developed by the State Occupational Information Coordinating Committee?*

Summary. In reference to information provided by the SOICC supply and demand matrix, there appears to be a number of occupational programs offered by area vocational schools, when in fact little or no demand for that particular occupation exists. Occupations such as welding, body and fender, small engine repair, and auto mechanics are examples of such programs. However, these occupational programs are among those most used by the cooperating schools and most often offered by the area vocational school.

Conclusions. In some instances, area vocational schools continue offering vocational education programs in various occupations which are currently over-supplied. Student demand appears to be a key consideration in selecting the types of programs to be offered.

(10) *Is the placement rate for area vocational schools different from placement rates for other types of delivery systems?*

Summary. There was little difference between the placement rate of the area vocational school programs and the placement rates of local education agencies offering their own vocational programs.

Conclusions. The area vocational schools did not have a better placement rate than other types of delivery systems.

(11) *Are there prerequisites for entering programs at area vocational schools?*

Summary. A majority of the area vocational schools surveyed did not have prerequisites for secondary students entering their vocational programs. Prerequisites for entering post-secondary and adult programs were minimal. However, GED or specific subject matter skills were required prior to entry into a specific associate degree program. In all cases, supplemental services were available for adults wishing to enter post-secondary programs but not meeting the specific entry requirements of a program. Programs which consistently had prerequisites were high technology and health-related programs. It was found, through interviewing counselors and administrators at the cooperating schools, that cooperating schools provided a more stringent screening process for students entering into the area vocational school programs than for in-house programs. In some cases, the local school did impose prerequisites or other requirements such as good attendance and/or an occupational intent before allowing a student to enroll in a secondary area vocational school program.

Conclusions. For the most part, prerequisites did not exist for students entering area vocational school programs. However, a screening process for secondary students was often implemented by the cooperating school. In situations where certain vocational programs were popular with the students, a screening process was needed because there were more students than available slots.

(12) *What input does the cooperating school have in the development of curriculum and programs at the area vocational school?*

Summary. The extent of input of cooperating schools into curriculum for the area vocational school varies from area vocational school to area vocational school. In most cases, the cooperating schools had no input into the post-secondary and adult curriculum of the area vocational school. On the other hand, secondary curriculum in at least 50 percent of the area vocational schools was developed cooperatively with an administrative committee made up of principals, vocational directors or superintendents from the cooperating schools. In some instances, periodic meetings for counselors of the area vocational school and cooperating schools were held. These meetings allowed counselors from cooperating schools to provide input for program needs.

Conclusions. A majority of the cooperating schools did have input for the secondary level curriculum at the area vocational schools. Some area vocational schools did not have the mechanisms to elicit formal input for curriculum development. In these cases, there appeared to be more dissatisfaction with the types and extent of program offerings.

(13) What forms of formal coordination and communication are established between area vocational schools and cooperating schools?

Summary. In many instances, the area vocational school secondary program had a program coordinator or assistant dean responsible for developing and maintaining formal and informal communications with the cooperating schools. This individual generally dealt on a daily basis with the administration of the cooperating school to provide him/her with information about student attendance, student performance, program changes, program scheduling, etc. Only in cases when area vocational schools were decentralized in terms of their facilities and programs did there seem to be communication problems. In these instances, comments were made from the building administrators, local directors, and counselors of cooperating schools which indicated a lack of information or misinformation about current problems, procedures, and programs at the area vocational schools. Very little communication existed regarding post-secondary and adult programs, however, the local administrators were not concerned.

Conclusions. Communication between area vocational schools and cooperating schools concerning secondary programs was found to be adequate. It appeared, however, that the more decentralized the administration for the area vocational program, the greater the communication problem. In general, there appeared to be adequate communication concerning adult and post-secondary programs as they served local district needs.

(14) To what extent are job development and job placement specialists available to graduates of secondary programs?

Summary. It appeared that in those area vocational schools hiring job development specialists, the secondary students were provided with

some services. However, there were several area vocational schools that did not offer job development and placement services to any of the graduates.

Conclusions. Generally, the secondary students were provided adequate services from job development and placement specialists in those instances where the area vocational school offered services. This type of service was not a high priority for most institutions.

(15) *To what extent are the program requirements for secondary students similar to those for post - secondary students in institutions having both levels of programs?*

Summary. The program completion requirements in high technology types of offerings were different for secondary and post-secondary students. In those programs which were highly regulated, such as cosmetology and health programs, the requirements were essentially the same for secondary and post-secondary students. Other programs which had similar requirements for secondary and post-secondary students were welding, auto body, and auto mechanics.

Conclusions. For most programs, the vocational competency requirements for secondary and post-secondary students were similar. Only in cases of high technology programs were significant differences noted.

(16) *To what extent is the instructional staff the same for secondary and post-secondary programs in those institutions having both levels of instruction?*

Summary. It was found through the case studies, that over 50 percent of the instructors dealt with both secondary and post-secondary students. In the case of high technology programs, there was more of a tendency to have separate instructors. There were some area vocational schools which did have separate instructional programs and faculty for secondary students; these instances were in community college settings. The faculty did not feel a separation or combination of assignments had any affect on the quality of instruction provided to the students.

Conclusions. There was a mixture of staff assignment within most area vocational schools. Staff generally taught secondary, post-secondary, and adult students. There were specific instances when this was not the case.

(17) What is the area vocational school's responsibility for monitoring student attendance?

Summary. All area vocational schools took full responsibility for monitoring and reporting student attendance to the cooperating schools. There were several area vocational schools which did not have an explicit attendance policy for secondary students. It was the feeling of the administrators of the area vocational schools that attendance policies of each cooperating school should be enforced for its respective students. Further, area vocational school administrators felt it was their responsibility to report student attendance and that it was the cooperating school's responsibility to enforce its own attendance policies. It was found, however, that if a student's attendance was poor, the area vocational school would take steps to drop the student from the program. Post-secondary attendance requirements varied greatly among the schools and were more lenient than secondary attendance policies.

Conclusions. Attendance requirements were in effect in all area vocational schools visited. There was a difference, however, in how these requirements were manifested and who was responsible for enforcing the requirements. Post-secondary and adult attendance requirements were more lenient than secondary attendance policies.

(18) Are secondary students and post - secondary students co-minglea within the institution?

Summary. There were a few instances when secondary and post-secondary students attended the same classes at the same time. Generally, however, secondary students were kept separate from post-secondary students for instructional purposes. In those instances when they were co-mingled, instructors seemed to indicate that as long as post-secondary students were a majority there appeared to be no problem.

Conclusions. In actual practice it seems best to have secondary students separate from post-secondary students for instructional reasons. If a mixture of students is necessary, it is recommended that no more than 40 percent of the students be secondary students.

(19) *At what times are secondary programs offered?*

Summary. The majority of secondary programs were offered in the morning and afternoon sessions. There were instances, when either the morning or afternoons were allocated exclusively to secondary students and the post-secondary students were allocated the other portion of the day. There were some area vocational schools that did offer evening programs for their secondary students.

Conclusions. As a general rule, area vocational schools offered programs for their secondary students throughout the school day. In those instances when only morning or afternoon slots were assigned, there appeared to be greater scheduling problems created for the cooperating schools.

(20) *What is the cost per student for various programs at the area vocational school versus those for the state average and other types of delivery systems?*

Summary. In reviewing the cost data, it was found that the cost of operating area vocational school programs compared favorably with those of large school districts and was below the state average in all cases reviewed. When comparing the cost of operating vocational programs at the area vocational school to that of the small school districts, the area vocational school programs were more cost effective.

Conclusions. Programs offered through an area vocational school delivery system can increase cost effectiveness for small rural schools. Satellite programs may also offer some cost advantage to the local schools.

(21) *How much travel time do students need in order to participate in the area vocational school?*

Summary. In general, travel time ranged between 30 and 45 minutes each way for students participating at area vocational schools. The cooperating schools, as a rule, were responsible for transportation of students to and from area vocational schools. In some instances, the area vocational schools took the responsibility for transportation, and in a few instances local school districts required that students participating in the area vocational schools provide their own transportation. In those instances where travel time exceeded an hour (one class period) the number of students participating in the vocational education program diminished substantially. Administrators of the cooperating schools did express concerns about travel time and transportation costs inherent in participating with the area vocational schools. They conceded that if the price of fuel continued to rise, the cost factor for transportation would have to be considered when looking at the overall cost for delivering vocational education programs.

Conclusions. The majority of the students were not adversely affected by travel time. In some instances, however, travel time did become a factor, particularly for those cooperating schools which operated on a six-period day, when two periods of that day were consumed in travel. This made it difficult for those students participating in the area vocational school programs to meet the overall graduation requirements at the local school. Further, the cooperating school administrator saw travel costs as a factor in the overall cost of offering vocational education programs to their students. Area vocational schools cannot effectively serve local schools when travel time exceeds 45 to 50 minutes one way, without providing off-campus delivery of its programs through satellites.

OBJECTIVE 2: TO DESCRIBE THE IMPACT OF SERVICES PROVIDED BY THE AREA VOCATIONAL SCHOOLS ON STUDENTS.

(1) To what extent do students continue their programs at the area vocational school?

Summary. The completion rate of students at area vocational schools appears to be slightly higher than that for the state average. This is partially due to the more rigid selection requirement used for initially placing students in the area vocational school program.

Conclusions. It is the feeling of evaluators that the more specific screening and placement processes used by the cooperating schools for assigning students to area vocational school programs had positively affected the completion rate for area vocational school students.

(2) *What is the major reason for students not continuing their program?*

Summary. It was found that the major reason for students not continuing their program was that they had dropped out of school. These students appeared to have been discontent, not only with the vocational education program, but also with school in general.

Conclusions. In order to increase the completion rate of the vocational education programs, extensive efforts must be undertaken for dropout prevention.

(3) *Upon graduation, what percent of students are placed in jobs related to their training?*

Summary. The discrepancy matrix found in the technical report indicated that the placement rate varied drastically among programs and schools within planning regions.

Conclusions. A generalization cannot be made pertaining to the factors affecting the overall placement rate. It does appear, however, that the placement rate for area vocational school programs was only slightly higher than that for the state average.

(4) *Are there greater numbers of students enrolled from schools closer to the area vocational school than from schools on the perimeter of the area vocational school's service area?*

Summary. There appeared not to be much discrimination among schools by distance for those districts within 20 to 30 miles of the area vocational school. However, school districts 30 miles or farther from the area vocational school did not use the area vocational school programs to as great an extent as those schools located closer to the area vocational school.

Conclusions. Distance did affect the extent of involvement of cooperating schools with the area vocational school. This was probably a factor of time, in that, if it took more than one class period to transport students from the cooperating school to the area vocational school, the cooperating school was less likely to send students. When students spent three or more periods for travel, out of a six or seven period day, they had trouble meeting graduation requirements on time.

(5) *To what extent do students perceive they receive quality instruction?*

Summary. The data indicated that students were pleased with the quality of their instruction. They reported that the instructors knew their subject matter and the program was presented in such a manner that they could learn the skills needed for the occupation.

Conclusions. Quality instruction does take place within the area vocational schools as evaluated by the students.

(6) *What are the major reasons students enroll in area vocational schools?*

Summary. The two most often cited reasons for enrollment in the area vocational school programs were, "I wanted to see what the program was like," and "I was interested in pursuing a career in this area."

Conclusions. There appeared to be some need for career advisement prior to students entering a vocational education program, in that a large number of students entering programs were doing so to explore career alternatives. There were several area vocational schools which did offer a skill center or exploration kind of experience where students could sample a variety of programs before making a choice. This strategy proved to be somewhat effective in eliminating the number of students taking a particular program to explore its possibilities for a career.

(7) *Is there a difference in the perceptions of the area vocational school administrators and cooperating school administrators in how effectively the area vocational school is meeting the needs of their secondary students?*

Summary. Area vocational school administrators and cooperating school administrators appeared to have the same perceptions about the quality of vocational education offered, and the problems and concerns for operating the area vocational school.

Conclusions. The data disclosed that there was close agreement on most problems, issues, and program quality indicators between cooperating school administrators and area vocational school administrators.

OBJECTIVE 3: TO DESCRIBE THE LOCAL SCHOOL ADMINISTRATORS' PERCEPTIONS OF THE AREA VOCATIONAL SCHOOL SYSTEM.

(1) How is the cooperating school district currently meeting the vocational education needs of their students?

Summary. Most cooperating schools augmented the area vocational school offerings with in-school offerings. The vocational programs offered at the local level were often considered part of the school's traditional curriculum. Business and office education and production agriculture were examples of such programs. Most administrators in cooperating school districts responded that with the assistance of the area vocational school, they were meeting the vocational needs of their students. In a few cases, the administrators did express that further programs were needed at the area vocational school in specific skill areas. A large number of cooperating school administrators reported they could have used more slots in certain programs such as auto mechanics, auto body, cosmetology, etc. (high student demand programs).

Conclusions. Administrators of schools which cooperated with area vocational schools felt the vocational education needs of their students had been met.

(2) How does the administration perceive the function of the area vocational school in addressing program needs for their school district?

Summary. The common views of cooperating school administrators reflected a satisfaction concerning the area vocational school's ability

to meet their local school district needs. There were instances when administrators expressed a desire to have additional vocational programs added to the area vocational school curriculum. The programs which they recommended to be added were often high cost programs.

Conclusions. By and large, cooperating school administrators were satisfied with area vocational schools' program offerings and responsiveness to vocational education needs of the local school districts.

(3) What does the local administrator think are the major strengths and weaknesses of the area vocational school?

Summary. The major strengths and weaknesses reported by the cooperating school administrators were: Strengths--ability to offer a larger selection of vocational education programs to their students, more cost effective program delivery services for many vocational education programs, and quality instructors. Weaknesses--increased problems in scheduling of classes, conflicts with students participation in extracurricular activities, school calendar conflicts, transportation, and difficulty for some students to meet graduation requirements on time.

(4) To what extent is there cooperation between the cooperating school and the area vocational school?

Summary. Through interviews and surveys, it was determined that close cooperation existed between area vocational school and cooperating school administrators and counselors. There were instances when this cooperation was not as apparent; but, in general, it was found that strong cooperation did exist.

Conclusions. In order to have an effective area vocational school delivery system at the secondary level, strong formal communication channels need to be developed which allow local administrators to contact decision-makers at the area vocational school. Further, communication channels among cooperating school counselors and area vocational school counselors are needed in order to improve the student selection process. Program completion rate can be tied to the affectiveness of the cooperating school counseling and selection process.

(5) *To what extent is the cooperating school involved in curriculum development and program improvement activities at the area vocational school?*

Summary. It was found that there was limited input from cooperating schools in terms of curriculum development and program improvement activities. The cooperating schools did have input into the types of programs offered; however, once this decision was made, the curriculum was developed and the program evaluation was primarily done by the area vocational school faculty and administration.

Conclusions. Curriculum and instructional activities were the prerogative of the area vocational school. The local school districts did not seem to feel they needed to be involved in the specifics of developing curriculum or evaluating the programs.

RECOMMENDATIONS

In light of the summary and conclusions provided in this report, the following recommendations are offered to the State Board for Community Colleges and Occupational Education and administrators or policymakers of area vocational schools and cooperating schools.

It is recommended:

(1) That specific selection procedures be developed for each program area so that guidance counselors from cooperating schools can initiate a selection process which will allow the most qualified and interested students to benefit from area vocational school programs.

(2) That additional area vocational schools be considered only if three or more high schools are situated within a 20 mile radius of a common point which have sufficient enrollment to support an area vocational school.

(3) That area vocational schools institute a satellite concept for those school districts outside a 30 mile radius from their campus.

(4) That area vocational schools intended to emphasize programs for secondary students be offered through an independent school district or a BOCES school district when a choice exists.

(5) That area vocational schools which want a major emphasis in post-secondary and adult programs be organized through an existing or new, community or junior college when such a choice exists.

(6) That the State Board needs to suggest sample policies dealing with attendance, transportation, and scheduling that may enable the area vocational schools to more effectively address these problem areas.

(7) That the counselor(s) in each cooperating school involved with an area vocational school, be provided with formal training in the area of career and vocational counseling.

(8) That the State Board for Community Colleges and Occupational Education Guidance Supervisor provide in-service training for counselors supplying services to students attending area vocational school programs.

(9) That certain programs within each planning region need to be reviewed in terms of their overall effectiveness in providing jobs for the graduates.

(10) That the State Board cut funding to those programs not supplying graduates to the labor market. Criterion for such decisions can be the percent of placement for graduates and the relative employment demand for graduates from that program. There is an over-supply of graduates in the areas of auto mechanics, auto body, and welding.

(11) That the State Board for Community Colleges and Occupational Education should increase the emphasis of short-term adult programs. Community colleges offering such programs were more interested in these types of programs when they were FTE generating.

(12) That funding for adult programs is not adequate in it self and the State Board needs to review the process for initiating and funding short-term adult programs to help meet adult education needs.

(13) That the State Board for Community Colleges and Occupational Education review the definition for area vocational schools and eliminate the area vocational school designation of those institutions that do not meet the criteria. There are a few area vocational schools not serving a total continuum of secondary, post-secondary and adult students.

(14) That in-service be provided to all administrators and counselors throughout the state dealing with the definition and functions of area vocational schools. It was obvious that many individual administrators viewed area vocational schools as only secondary programs.

(15) That more emphasis be placed on adult education. Funding for adult programs was a major problem because most institutions attempted to fit adult programs into post-secondary FTE generating formats.

(16) That specific feasibility studies be conducted in the east, central, and southeastern sections of the state in order to identify the extent to which school districts are interested in developing cooperative efforts to meet their students' vocational education needs.

(17) That the concept of an area local director be explored. This individual could be responsible for vocational education programs for several small rural schools, working to coordinate the types of programs offered, so that through contract or cooperative agreement each school could take advantage of all vocational education programs offered in the area. This type of administrative arrangement might be patterned, in part, after the Arapahoe Douglas system. One must keep in mind that the major problem identified with a decentralized system is the maintenance of good communication among the participating schools.

In general, the research established that the area vocational schools were an effective force in delivering quality vocational education to secondary, post-secondary, and in some cases, adult students in Colorado. The data indicated there were a large number of small rural school districts not presently being served through area vocational schools or satellite programs. These districts were rather large in area, had small student enrollments, and, in some cases, were isolated by geographical barriers such as mountain ranges, rivers, or canyons. In order to improve vocational education in these areas, it is seen that area vocational schools must opt for satellite programs, or that the State Board for Community Colleges and Occupational Education initiate a concept of cooperative programming by sponsoring an "area local director" who would serve several small schools.

The geographic isolation of many school districts due to mountain ranges and large expanses of farm and range land presents unique problems for Colorado vocational educators and administrators. The traditional area vocational school concept does not seem to be the complete answer in solving the problems of serving these isolated schools. However, the area vocational schools appear to be very effective within a 20 to 30 mile range of the area vocational school facility.

In some instances, when large enough clusters of students can be gathered, satellite programs appear to be an appropriate response to the local school's needs. However, there are many districts in Colorado which are isolated from the surrounding districts and cooperative arrangements appear minimal because of transportation difficulties. If expanded vocational education offerings are to be provided to students within these districts, concepts such as itinerant programs must be considered. These would be programs that may be delivered for one or two years in a particular school district for anyone interested and then transported to another school district for one or two years. Also, multi-occupational cooperative education programs that use the facilities of the community for vocational training could be considered. (This strategy requires the development of related instructional material. This particular area has been a weakness of multi-occupational programs in that one instructor has not been able to provide related instruction in the diverse occupational fields served by the program. Extensive curriculum development would have to be supported through the State Board for Community Colleges and Occupational Education and in-service and pre-service training provided to coordinators of these programs.)

Rural schools need to provide input into what they consider to be the best strategy for offering vocational education to their students. Each school district will undoubtedly have unique constraints and problems. The planning staff for each planning region needs to identify those problems and help the districts develop strategies for overcoming them. The recommendation is for the State Board to take a pro-active role in developing vocational education programs in rural districts.

IMPACT EVALUATION OF THE AREA VOCATIONAL SCHOOL DELIVERY SYSTEM

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

TM 810 745 (2 of 2)

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

B Barnes

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TECHNICAL REPORT

IMPACT EVALUATION OF THE AREA VOCATIONAL SCHOOL DELIVERY SYSTEM

Project Director:
Dr. Kendrick L. Spooner

Research Specialist:
Mr. Douglas R. Curtis

Center for Education and Management, Inc.
1002 5th Street
Greeley, Colorado
80631

September 1980

The research was sponsored by the Colorado Research Coordinating Unit of the State Board for Community Colleges and Occupational Education. The researcher was encouraged to express his judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent the official position or policy of the Colorado Research Coordinating Unit or the State Board for Community Colleges and Occupational Education.

Abstract

The purpose of this study was to determine the impact of the area vocational school delivery system upon the quality and quantity of vocational education within the state of Colorado. The study designed instrumentation and collected data to investigate impact perceptions and concerns. These instruments were constructed to measure qualitative and quantitative factors affecting programs and systems. Data were collected through structured interviews of a selected sample of area vocational schools and their cooperating constituents. Statistically significant correlations were obtained to evaluate program effectiveness, cost effectiveness, and completion and placement ratios for area vocational school programs in Colorado.

Primary respondents to the investigation included administrators, counselors, teachers, students, and advisory committee members. The report contains a brief description of the methodology, and lists specific objectives which served as the framework for the study and inquiries for which answers were sought. The analysis of data from a statewide impact survey, conducted by the Center for Education and Management is described.

The final chapters of the report provide the summary, conclusions, and recommendations as they pertain to the impact of the delivery of vocational education by Colorado Area Vocational Centers.

Some conclusions and recommendations are: (1) the area vocational schools are making a serious and good-faith attempt to serve secondary students; (2) the major impact of an area vocational school is upon the students attending local education agencies within a 20 mile radius of the area vocational school; (3) satellite programs appear to be a viable

alternative for extending the impact of area vocational schools; (4) the organizational structure of an area vocational school appears to impact little upon the quality and quantity of vocational education programs offered to LEAs; and (5) area vocational schools offer, in some instances, programs that have a minimal demand. (6) Further, it was indicated that the area schools had difficulty implementing new programs where the demand was high because of personnel obligations and financial constraints, (7) the placement rate for area vocational schools was no better than that for other schools in the state, (8) area vocational schools prove to be more cost effective than small rural schools, (9) cooperating schools generally had stiffer entry level requirements for students attending area vocational school programs than they had for students attending vocational education programs within the local school, and (10) communication between the area vocational school and the local education agency appeared to be good. It was found that the more decentralized the administration of the secondary area vocational school program, the more difficult it was to maintain good communication.

Generally, it was determined that communication and coordination between the cooperating schools and the area vocational school were adequate. It was further found that the mission of the sponsoring institution for the area vocational school did impact upon the priorities placed for serving secondary, post-secondary, and adult students. Data indicated that adult education programs were by far the weakest portion of most area vocational school delivery systems. This was in part due to the way adult programs were funded. The report also indicates problems in serving districts in geographical isolation areas and areas with low population densities.

Sixteen recommendations are provided as guides for implementing programs to assist area vocational schools. These recommendations deal with: student selection; placement of area vocational schools for best service to secondary program; types of administrative structures that will best serve secondary, post-secondary, and adult programs; the need for policies pertaining to attendance, transportation and scheduling; the need for more effective guidance, counseling and placement services for secondary, and in some cases, post-secondary students; the need for looking at alternatives for delivering vocational education other than the traditional area vocational school; and the implementation and funding of adult vocational education programs.

In summation, the students, administrators, and counselors from both the area vocational schools and cooperating districts report overall satisfaction with the area vocational school's ability to deliver quality vocational education at the secondary and post-secondary levels.

Table of Contents

	Page
Chapter 1 - Introduction	1
Objectives	2
Methodology	5
Procedures	6
Review of Proposed Research Plan	6
Advisory Committee	6
Management Information System Review	7
Survey of Local Administrators	7
On-Site Review	8
Chapter 2 - Data Analysis	9
Management Information System	9
Location and Involvement of Cooperating Schools	9
Discrepancy Analysis	35
Case Study	65
Summary of Site Visits and Surveys	65
Area Vocational School Administrator	65
Problem Areas	66
Staffing	67
Vocational Administrators' Survey	70
Determination of Number of Students Accepted	73
Percent of Secondary, Post-Secondary, and Adult Students	74
Number of Secondary School Districts Served	75
Organization of Instructional Staff	76
Program Times	76
Program Development	76
Program Evaluation	77
Major Problems in Providing Vocational Education Programs--Secondary	77
Major Problems in Offering Vocational Education Programs--Post-Secondary, Adult	78
Strengths of the Area Vocational School Program	78
Major Weaknesses of the Program	79
Communications	79
Placement and Job Development Services	82
Attendance Policies	82
Supplemental Services	83
Student Progress Reports	84
Travel Distance	84
Identification of Adult Needs	84
Off-Campus Programs	85
Summary	85
Cooperating School Administrators' Interviews	85
Major Strengths	86
Major Weaknesses	87
Suggested Improvements	87
Summary of Cooperative Administrators' Survey Responses	89
Introduction to Area Vocational School Administrator Survey	91
Counselor Interviews and Survey	95
Teacher Interviews	100
Student Interviews	103
Advisory Committee	104

Table of Contents
(Continued)

	Page
Chapter 3 - Summary and Conclusions	106
Chapter 4 - Recommendations	127
Appendix A - Advisory Committee Members	132
Appendix B - Questionnaires	134
Appendix C - Survey Results	163

List of Tables

Table		Page
1	Program Completer Discrepancy Matrix - Totals Denver Metropolitan Planning Region	38
2	Program Completer Discrepancy Matrix - For School District Denver Metropolitan Planning Region	40
3	Program Completer Discrepancy Matrix - Totals Western Slope Planning Region	46
4	Program Completer Discrepancy Matrix - For School District Western Slope Planning Region	47
5	Program Completer Discrepancy Matrix - Totals Southeast Planning Region	51
6	Program Completer Discrepancy Matrix - For School District Southeast Planning Region	52
7	Program Completer Discrepancy Matrix - Totals Northeast Planning Region	57
8	Program Completer Discrepancy Matrix - For School District Northeast Planning Region	58
9	Comparison of Average Placement Rates and Completer Rates for a Sample of AVS Programs	63
10	Cost Comparison of Various Delivery Systems for a Sample of Programs	64
11	Summary of Vocational Administrators' Responses	71
12	Total of all Area Vocational School Student Enrollment Estimates by Secondary, Post-Secondary, and Adult	74
13	Percentage Distribution of Enrollment by Secondary, Post-Secondary, and Adult Programs According to Site Visit Data	75
14	Administrators of Cooperating Schools Responding to the Area Vocational School Impact Study Questionnaire	90
15	Grade Level of Students Enrolled in Area Vocational School Vocational Programs	90
16	Area Vocational Schools Responding to Questionnaire and Number of Administrators from Each Responding	92

List of Tables
(Continued)

Table		Page
17	Schools Responding to the Area Vocational School Administrator Questionnaire	93
18	Schools that Contract with Area Vocational Schools as Reported on the Area Vocational School Impact Study Questionnaire	94
19	Schools that Contract to More than One School as Reported on the Area Vocational School Impact Study Questionnaire	95
20	Persons Influencing Students to Enroll in the Area Vocational School	104

List of Figures and Lists

Figure		Page
1	Sites Visited by Research Teams	8
2	Location and Extent of Utilization of Cooperating Schools for Aims Community College	12
3	Location and Extent of Utilization of Cooperating Schools for Arapahoe/Douglas Area Vocational School	13
4	Location and Extent of Utilization of Cooperating Schools for Aurora Vocational Technical School	14
5	Location and Extent of Utilization of Cooperating Schools for Boulder Valley Vocational Technical School	15
6	Location and Extent of Utilization of Cooperating Schools for Colorado Mountain College - Glenwood Springs	16
7	Location and Extent of Utilization of Cooperating Schools for Colorado Mountain College - Leadville	17
8	Location and Extent of Utilization of Cooperating Schools for Colorado Mountain College - Steamboat Springs	18
9	Location and Extent of Utilization of Cooperating Schools for Delta Montrose Area Vocational School	19
10	Location and Extent of Utilization of Cooperating Schools for Emily Griffith Opportunity School	20
11	Location and Extent of Utilization of Cooperating Schools for Lamar Community College	21
12	Location and Extent of Utilization of Cooperating Schools for Larimer County Vocational Technical School	22
13	Location and Extent of Utilization of Cooperating Schools for Mesa Community College	23
14	Location and Extent of Utilization of Cooperating Schools for Morgan Community College	24
15	Location and Extent of Utilization of Cooperating Schools for Northeastern Junior College	25
16	Location and Extent of Utilization of Cooperating Schools for Otero Community College	26
17	Location and Extent of Utilization of Cooperating Schools for Pikes Peak Community College	27

List of Figures and Lists

Figure		Page
18	Location and Extent of Utilization of Cooperating Schools for Pueblo Vocational Community College	28
19	Location and Extent of Utilization of Cooperating Schools for Rangely College	29
20	Location and Extent of Utilization of Cooperating Schools for San Juan Basin Area Vocational Technical School	30
21	Location and Extent of Utilization of Cooperating Schools for San Luis Area Vocational School	31
22	Location and Extent of Utilization of Cooperating Schools for Trinidad State Junior College	32
23	Location and Extent of Utilization of Cooperating Schools for Warren Vocational Technical School	33
24	Colorado School District Boundaries	34
25	Major Strengths of the Area Vocational School Program as seen by Cooperating School Administrators	86
26	Major Weaknesses of the Area Vocational School Program as seen by Cooperating School Administrators	87
27	Suggestions for Improving the Area Vocational School Program from Cooperating School Administrators	89

List		Page
1	Major Strengths of the Area Vocutional School	80
2	Major Weaknesses of the Area Vocational School	81
3	Cooperating School Counselors' General Impressions of the Area Vocational School Program	99
4	Area Vocational School Instructors' Perceptions of Student Interest	102

Acknowledgment

The project was completed with the assistance of Dr. Robert Barnes, Mr. Tom Milan, Mr. Jack Stoddard, and Dr. Robert Welch. Mr. Douglas Curtis served as a research specialist and conducted the site visit activities.

The project staff expresses its appreciation to the administration, staff, and students of the seven area vocational schools visited and the cooperating schools willing to give time to the research consultant as part of this study. It is only through this type of cooperation that meaningful research can be completed.

It is our sincere hope that the findings from this work will improve the delivery of vocational education.

Impact Evaluation of the Area Vocational School Delivery System

CHAPTER 1

Introduction

Since the 1963 Vocational Education Act, there has been a concentrated effort to develop a concept called Area of Joint Vocational School Districts. Many states have implemented this type of programming in order to deliver quality vocational education to a larger number of students. The problem that the small schools faced prior to the 1963 Act was that many vocational education programs were extremely expensive to offer and that because of the low enrollment in the schools, the programs could not be justified. The area vocational schools were developed to solve this problem. In an area vocational school, several districts were to join together in the development of vocational programs to meet the schools' needs. Colorado has formed such a program delivery system for vocational education.

There are at least three distinct types of area vocational schools in Colorado; (1) a board of cooperative educational services formed by a resolution of a group of school districts; (2) those area vocational schools associated with community colleges that contract with cooperating secondary schools to provide vocational education programs for secondary students, and (3) area vocational schools supported by independent school districts. Now that these programs have had time to mature, the question is, "How effective have they been in meeting their initial goal?"

It was calculated that approximately 65,000 eleventh and twelfth graders are in school districts that could be served by the existing Colorado area vocational schools. These students consisted of juniors

and seniors in high schools close enough to the area vocational school for the local education agency to become involved with the vocational education program.

Objectives

The major focus of the study was to determine if the current area vocational school system was adequately meeting the needs of Colorado residents. The specific objectives for the study were:

(1) To describe the structure, services, programs, problems, and other characteristics of an area vocational school.

(2) To describe the impact of services to students.

(3) To describe local school administrators' perceptions of the area vocational school system.

The below presentation provides a review of questions to further define the above stated objectives.

OBJECTIVE 1: TO DESCRIBE THE STRUCTURE, SERVICES, PROGRAMS, PROBLEMS, AND OTHER CHARACTERISTICS OF AN AREA VOCATIONAL SCHOOL.

In order to address this objective, a series of information was collected. The information needed was social-demographic, labor supply and demand, cost, programmatic, and geographic. The following are questions the research team sought to answer which are particularly related to the objective:

(1) What secondary schools are currently being served by each area vocational school?

(2) Under what type of organizational structure are the schools formed--local board autonomy or through a cooperative arrangement with a number of school boards (resolution)?

(3) How does the area vocational school deliver services to the local schools--through a quota system, through contract services, or both?

(4) How many schools in the vicinity of the area vocational school are not taking advantage of its program offerings?

(5) To what extent are Advisory Committees used?

(6) What type of guidance, counseling, and career development services are provided by the area vocational school?

(7) Does the area vocational school offer instruction through satellite locations?

(8) Does the area vocational school have separate facilities?

(9) To what extent are the programs at the area vocational schools congruent with the current supply and demand data developed by the State Occupational Information Coordinating Committee?

(10) Is placement rate higher or lower for area vocational schools than it is for other delivery alternatives?

(11) Are there prerequisites for entering the programs at the vocational schools? If so, who developed them and what are they?

(12) If there are prerequisites, what input does the cooperating school have in developing the prerequisites?

(13) What input does the cooperating school have in the development of curriculum and programs at the area vocational schools?

(14) What forms of formal coordination and communication are established between the area vocational schools and the cooperating schools?

(15) To what extent are job development and job placement specialists available to graduates from the secondary program?

(16) To what extent are the program requirements for secondary schools similar to those for post-secondary students in institutions having both levels of programs?

(17) To what extent is the instructional staff the same for secondary and post-secondary programs in those institutions having both levels of instruction?

(18) What is the area vocational school's responsibility for monitoring student attendance?

(19) At what times are secondary programs offered--mornings, afternoons, both, and/or evenings?

(20) What is the cost per student for various programs (use OE codes) at the area vocational school, and are these costs higher or lower than the state average cost for the particular program?

(21) How much travel time do students need in order to participate in the area vocational school?

OBJECTIVE 2: *TO DESCRIBE THE IMPACT OF SERVICES TO STUDENTS.*

Questions that needed to be answered in order to address this objective are:

(1) To what extent do students continue their program at an area vocational school?

(2) What are the major reasons why students do not continue in their programs?

(a) Extracurricular activities

(b) Traveltime

(c) Lack of transportation

(d) Disenchanted with program

(e) Other

(3) What percent of the students are placed in jobs related to their training upon graduation?

(4) Are there greater numbers of students enrolled in area vocational programs from cooperating schools that are closer to the area vocational school than from schools that are on the perimeter of their service area?

(5) To what extent do the students perceive they receive quality instruction?

(6) What are the major reasons students enroll in area vocational school vocational education programs?

(7) Is there a difference in the perceptions of area vocational school administrators and cooperating school administrators as to whether the services offered to students are meeting local district needs?

OBJECTIVE 3: *TO DESCRIBE THE LOCAL SCHOOL ADMINISTRATORS' PERCEPTIONS OF THE AREA VOCATIONAL SCHOOL SYSTEM.*

In order to achieve this objective, a survey of all local education agency administrators was undertaken to address the following concerns:

(1) How is their school district currently meeting the vocational education needs of their students?

(2) How does the administration perceive the function of the area vocational school in addressing program needs for their school district?

(3) What does the local school administration think are the major strengths and weaknesses of the area vocational school?

(4) To what extent is there close cooperation between the cooperating school and the area vocational school as judged by the cooperating school's and the area vocational school's administrators?

(5) To what extent is the cooperating school involved in the curriculum development and program approval activities in the area vocational school?

Methodology

In order to adequately evaluate the area vocational school delivery system, it was necessary not only to look at the area vocational schools, but also to survey the cooperating schools and those schools not cooperating in a joint venture. It was essential to identify other alternatives for supplying vocational education to meet student needs. Further, these alternatives needed to be evaluated in order to get a comparative base from which to make judgments about the effectiveness of the area vocational school delivery system.

Some of the alternatives to be considered are other public schools from which cooperating schools contract services. These schools are not designated area vocational schools. Also, private schools that contract for services from the local school districts and joint agreements among schools where students were transported from one school to another school district in order to take advantage of various vocational training programs were considered. Another alternative to be considered is the comprehensive high school program.

The evaluation study did not spend extensive time evaluating these other alternatives, but collected information through the State Board for Community Colleges and Occupational Education management information system and through a survey of local administrators in these schools for

comparative purposes. Further, members of the Advisory Committee were selected from schools participating in these other alternatives. In order to provide the State Board with prescriptive information, an in-depth, on-site case study was conducted with a selected group of area vocational schools. These studies were added to the information already collected through the questionnaire survey and management information system review.

Procedures

As the general overview indicated, there were basically three procedures utilized in collecting information for judging the effectiveness of the area vocational school delivery system: (1) management information system review; (2) survey of local administrators in cooperating schools, noncooperating schools, and area vocational schools; and (3) on-site visitations. Below are the considerations and procedures used for this study.

Review of Proposed Research Plan

The State Board planning staff, Research Coordinating Unit supervisor, and the Advisory Committee were given an opportunity to review the proposed research plan and provide input as to modifications in the types of data to be collected and the procedures to be used.

Advisory Committee

An Advisory Committee was formed consisting of seven individuals. These individuals included local directors of area vocational schools, local directors of comprehensive high schools, administrators from cooperating schools, and administrators from schools that have chosen not to cooperate with area vocational education schools.

The final selection of the members for this advisory board was made by the project director in consultation with the Research Coordinating Unit supervisor. The members of the Advisory Committee are listed in Appendix A.

The functions of the Advisory Committee were twofold. First, the committee provided input into the evaluation design and questions; and second, the committee was given an opportunity to review the evaluation findings and offer recommendations to be included in the final report.

Management Information System Review

The management information system review was implemented in order to minimize the amount of information collected directly from the local education agency. Many of the questions indicated in the above objectives were addressed through information currently collected by the State Board for Community Colleges and Occupational Information. Data such as the number of programs offered, the number of students served, the length of program, the completion rate, the follow-up and placement rate, and some information on attrition rates were obtained from the management information system. Extensive cost information was obtained both on the area vocational schools and on the comparison delivery systems mentioned above.

Survey of Local Administrators

A survey of all local administrators of area vocational schools (14 responses), cooperating schools (71 responses), and noncooperating schools (57 responses) was completed. The response rate for the survey was 72 percent. The individuals surveyed were those that had the greatest knowledge concerning the vocational education programs in their particular schools. They included superintendents, high school principals, guidance

counselors, the local director, or vocational teachers. These individuals were identified through a review of state documents. The intent of the survey was to get additional descriptive information concerning the school district and to provide perceptual information about the various alternatives for delivering vocational education. The instruments used are in Appendix B.

The instruments for this survey were developed prior to meeting with the Advisory Committee. The Advisory Committee reviewed the instrumentation and provided input into the types of questions to be asked. Three survey forms were developed: (1) one for cooperating schools, (2) one for schools not cooperating, and (3) one for the area vocational schools.

On-Site Review

Another strategy used was an on-site visit to selected area vocational schools. Seven schools were selected by the Advisory Committee and the State Board staff. These schools represented a cross-section of the various types of area vocational schools and geographic locations. Figure 1 indicates the school and evaluators for each site visit.

These on-site visits included interviews with teachers, administrators, and students in the area vocational school, as well as selected interviews with cooperating school administrators and vocational teachers. In-depth information was obtained in terms of the strengths and weaknesses of the area vocational schools.

School	Date	Consultant	Contact
Otero Community College	April 1 & 2	Spooner/Konrad	Jim Litle
Pikes Peak Community College	April 7 & 8	Barnes R./Milan	Leonard Smith
Arapahoe/Douglas Area Vocational School	April 10 & 11	Spooner/Welch	Wayne Ball
Northeastern Community College	April 14 & 15	Welch/Curtis	Hilbert Kahl
Delta/Montrose Area Vocational School	April 17 & 18	Welch/Curtis	Harry Anderson
Emily Griffith Opportunity School	April 21 & 22	Barnes R./Stoddard	Byron Graber
Boulder Area Vocational School	April 24 & 25	Milan/Stoddard	George Lyon

Sites Visited by Research Teams
Figure 1

CHAPTER 2

Data Analysis

The purpose of this section is to provide the reader with a summary of the methodology used in the evaluation and to present the data collected. The chapter is organized around the sources from which data were collected. A summary, conclusions, and recommendations based upon this information are presented later in the report.

Management Information System

The information from the management information system addresses two concerns. First, the impact of the area vocational school system and second, the cost of program delivery. The following maps and tables describe the impact of the area vocational school, the extent of participation with the area vocational school, and the average cost comparison of programs delivered by various types of schools.

Location and Involvement of Cooperating Schools

This section attempts to provide the reader with an understanding of the impact of the area vocational school delivery systems in terms of contracted programs provided, number of students participating in these programs, and the distance to be traveled in order for cooperating schools to participate in these programs.

It should be noted that the information for this section was compiled from data taken from the VE 115's (1978-79) submitted by school districts contracting for services with various area vocational schools in the 1979-80 school year. This information was correct at the time it was submitted although changes may have occurred since.

The information on the maps (Figure 2 through Figure 23) provide the reader with an indication of how far cooperating schools travel to the area vocational school and to what extent these cooperating schools participate in the area vocational school programs. It can be seen by observing the various maps that schools such as Aims Community College, Otero Community College, Pikes Peak Community College, San Luis Area Vocational School, San Juan Basin Area Vocational School, Aurora Vocational Technical Center, Lamar Community College, Morgan Community College, and Arapahoe/Douglas Area Vocational School provide services to a large number of districts. On the other hand, there were schools such as Boulder Valley Vo Tech Center, Delta/Montrose Area Vocational School, and Larimer County Vo Tech Center that deal with a relatively small number of schools, yet serve a large student population. There were programs identified that had very few secondary school enrollments. They were Emily Griffith Opportunity School, Mesa Community College, and Rangely College. The major service areas for the area vocational schools were public school districts within a 20 mile radius of the area vocational school.

Some area vocational schools provide branch or satellite programs to school districts outside of the 20-30 mile radius. Examples of these programs can be seen with Pikes Peak Community College, Lamar Community College, and Colorado Mountain College.

In the site visits conducted in conjunction with the study, very few schools within the 20 mile radius were found that did not cooperate with the area vocational school. The reason for lack of cooperation had a historical perspective and the decision not to cooperate was made by the local board of education. It appeared that the area vocational school's

service to secondary programs is adequate. There are a few area vocational schools, however, that provide service to a limited number of secondary students.

It was also noted through the interviews that the term "area vocational school" was used explicitly to define the secondary component of a school's vocational education offerings. This was true in every case when dealing with community junior college affiliate programs. The administrative structure and distinction between secondary, post-secondary, and adult programs in independently operated or in school districts operated by the board of cooperative educational services were not apparent. In these systems, the secondary program was the major emphasis of the institution; whereas, with a community college program, the post-secondary program was the major emphasis of the institution.

The statewide map, Figure 24, depicts those schools that feel their vocational program offerings are adequate and those schools not responding to the survey. There were two types of schools stating they did not presently offer an adequate number of vocational education programs. First, there were those participating in area vocational school programs. These felt more programs were needed. Second, there were small rural schools that felt they could not afford to implement more vocational education programs. For the most part, the distances among these rural schools were much greater than the 20 to 30 mile range in which the current area vocational school effectively operates.

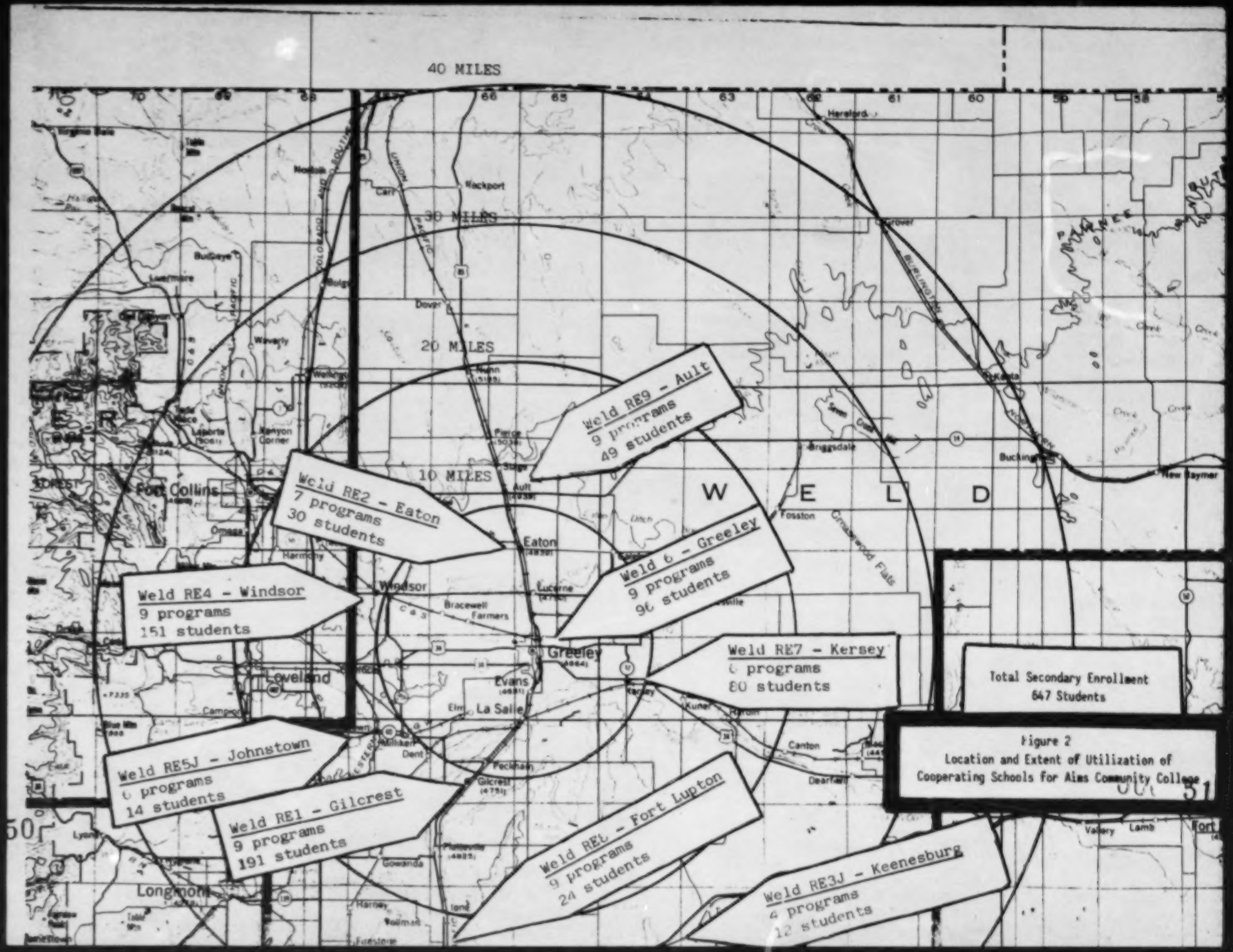


Figure 2
Location and Extent of Utilization of
Cooperating Schools for Aims Community College

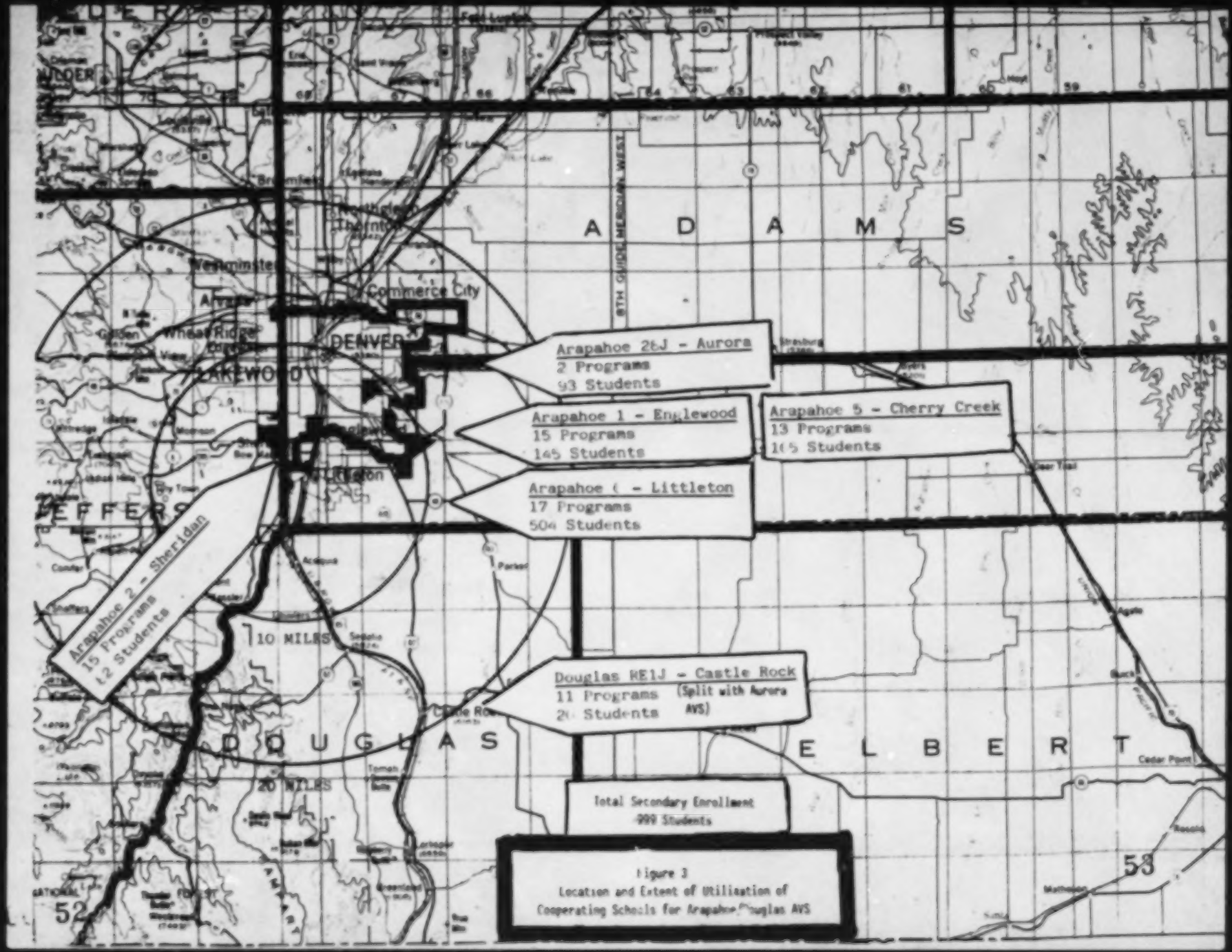


Figure 3
Location and Extent of Utilization of
Cooperating Schools for Arapahoe/Douglas AVS

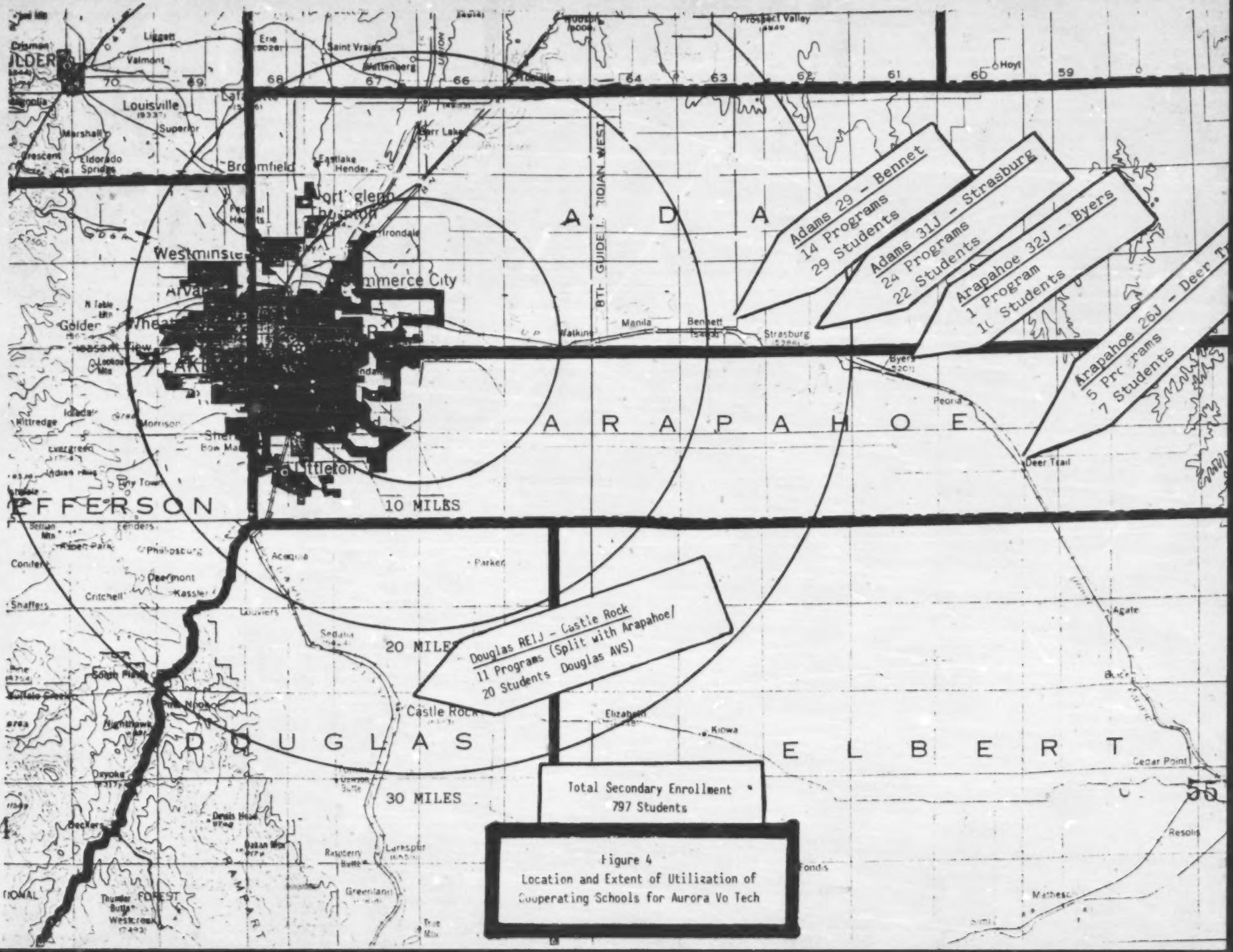
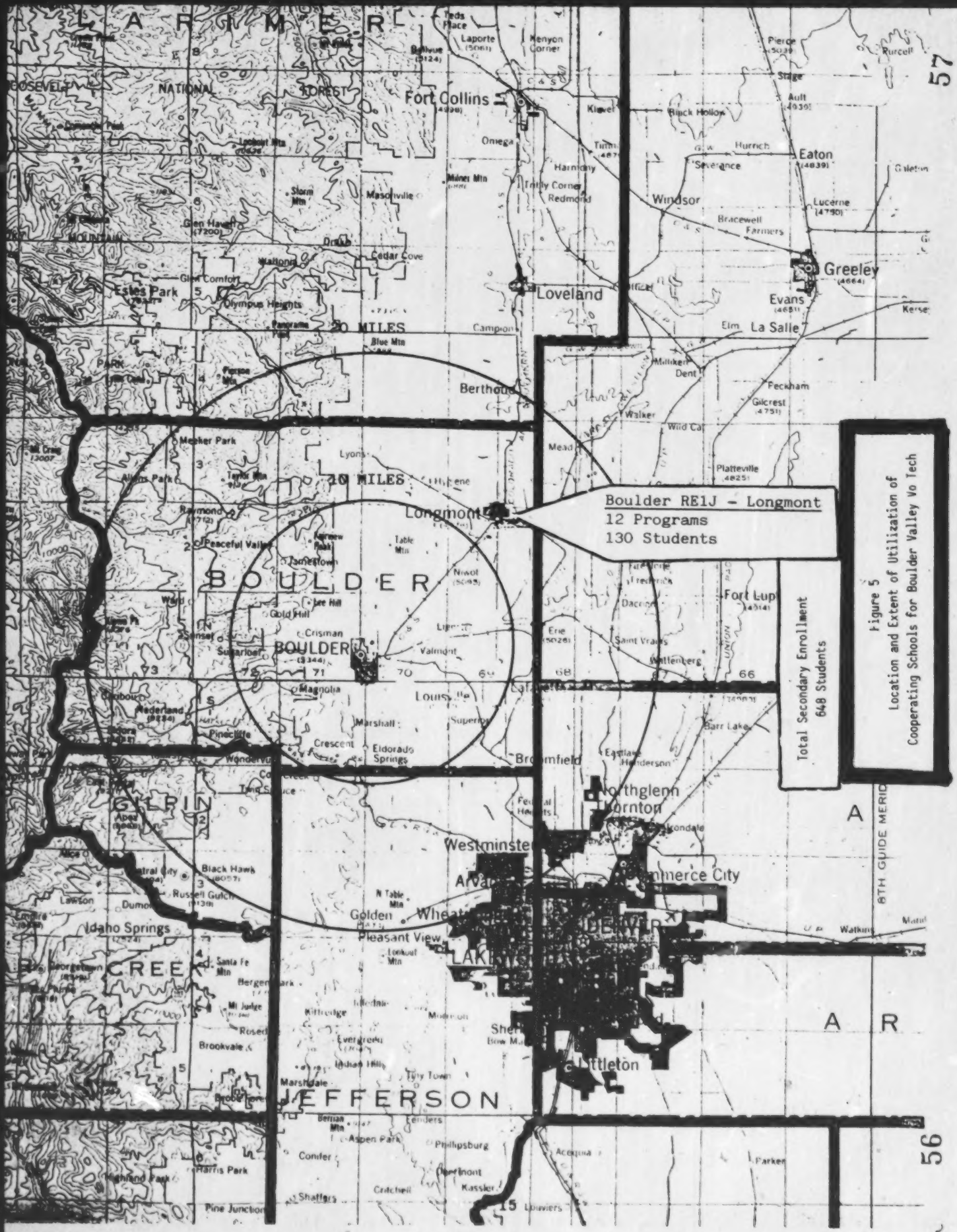


Figure 4
Location and Extent of Utilization of
Cooperating Schools for Aurora Vo Tech


Boulder RE1J - Longmont
12 Programs
130 Students
Total Secondary Enrollment
648 Students
Figure 5
Location and Extent of Utilization of
Cooperating Schools for Boulder Valley Vo Tech
ARAPAHOE
JEFFERSON
BOULDER
GILPIN
CLEAR CREEK
Fort Collins
Loveland
Greeley
Eaton
Evans
Windsor
Longmont
Boulder
Westminster
Arvada
Golden
Wheat Ridge
Lakewood
Littleton
Commerce City
Northglenn
Thornton
Broomfield
Berthoud
Estes Park
Idaho Springs
Fort Lupton
20 MILES
30 MILES
57
56

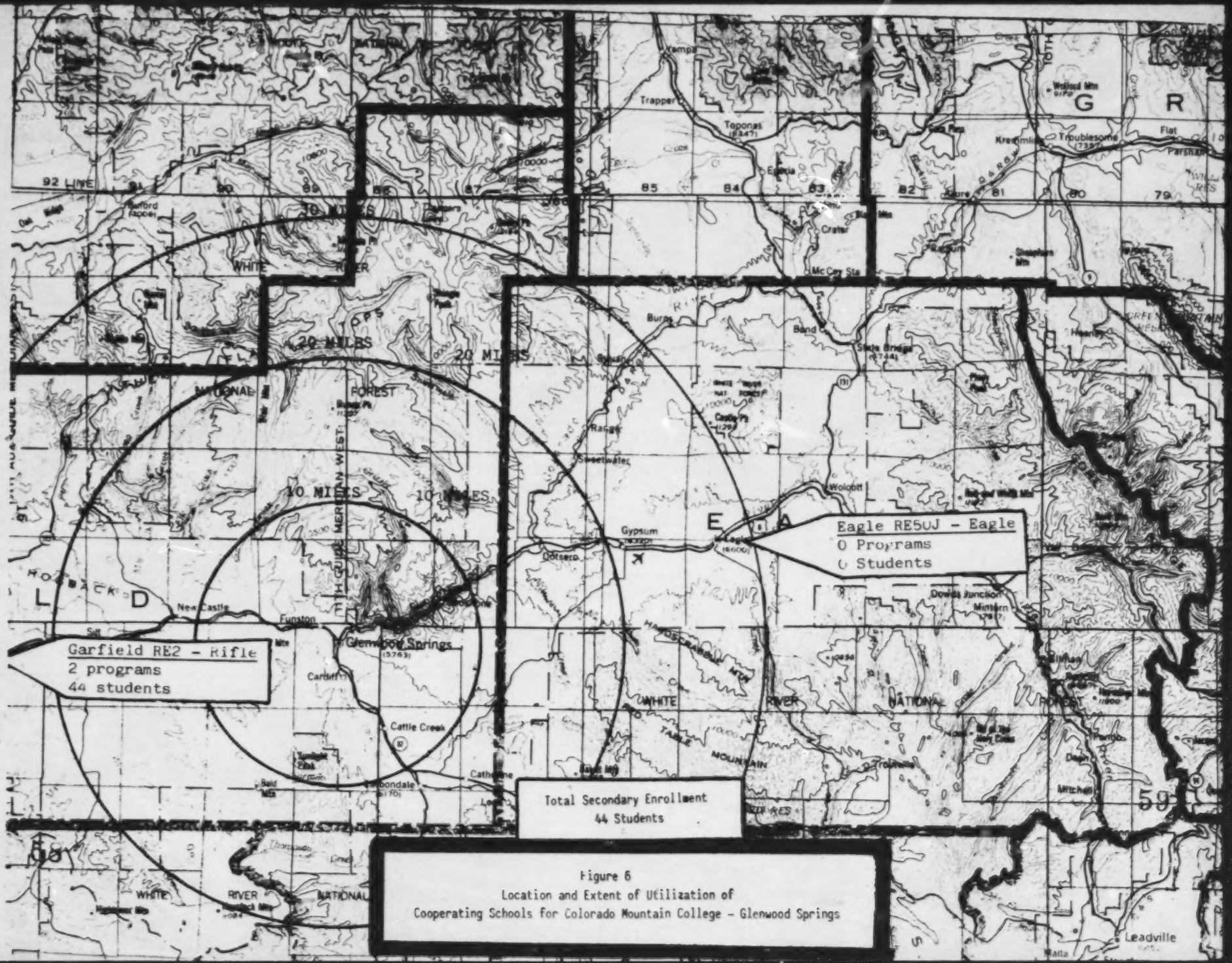


Figure 6
Location and Extent of Utilization of
Cooperating Schools for Colorado Mountain College - Glenwood Springs

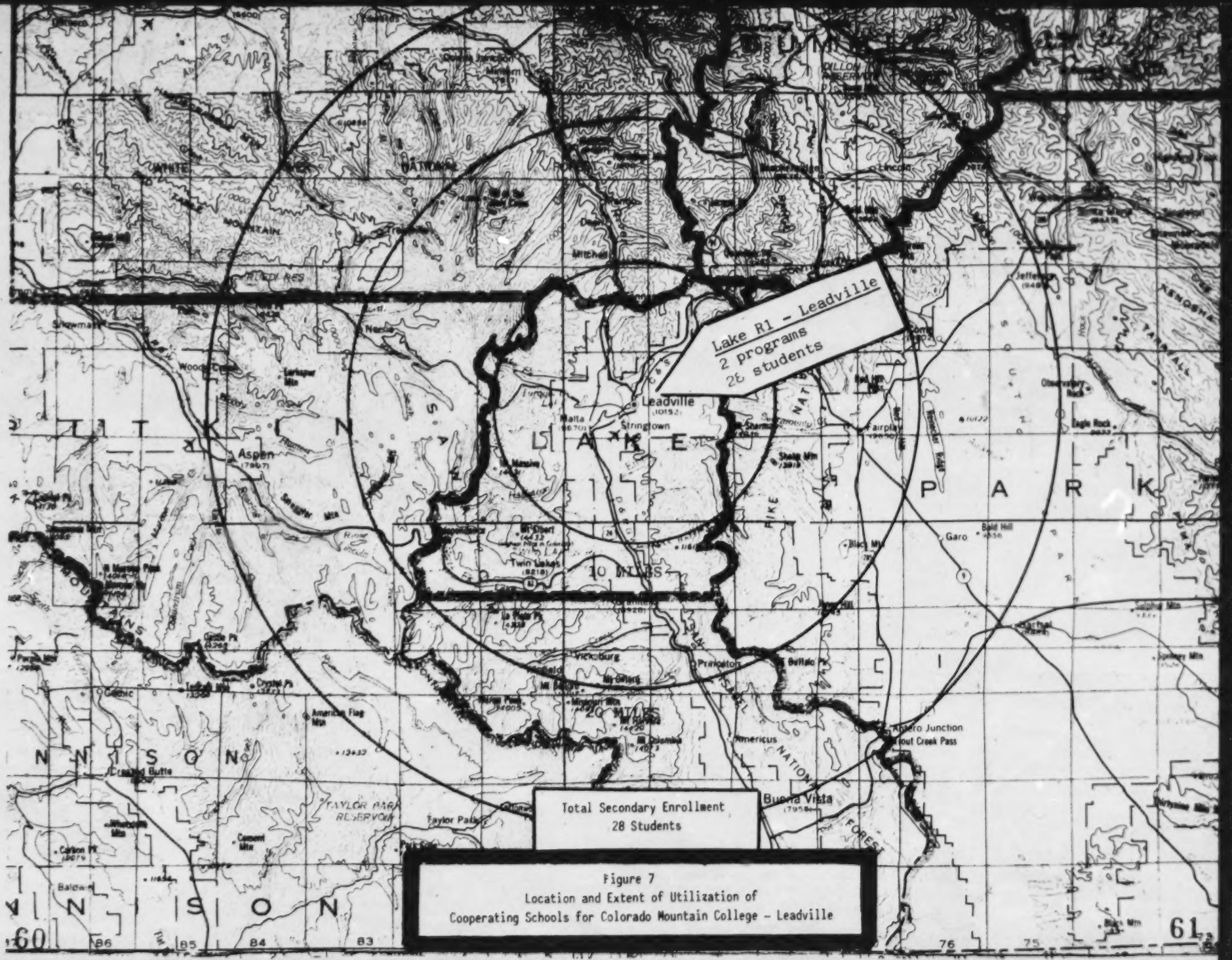


Figure 7
Location and Extent of Utilization of
Cooperating Schools for Colorado Mountain College - Leadville

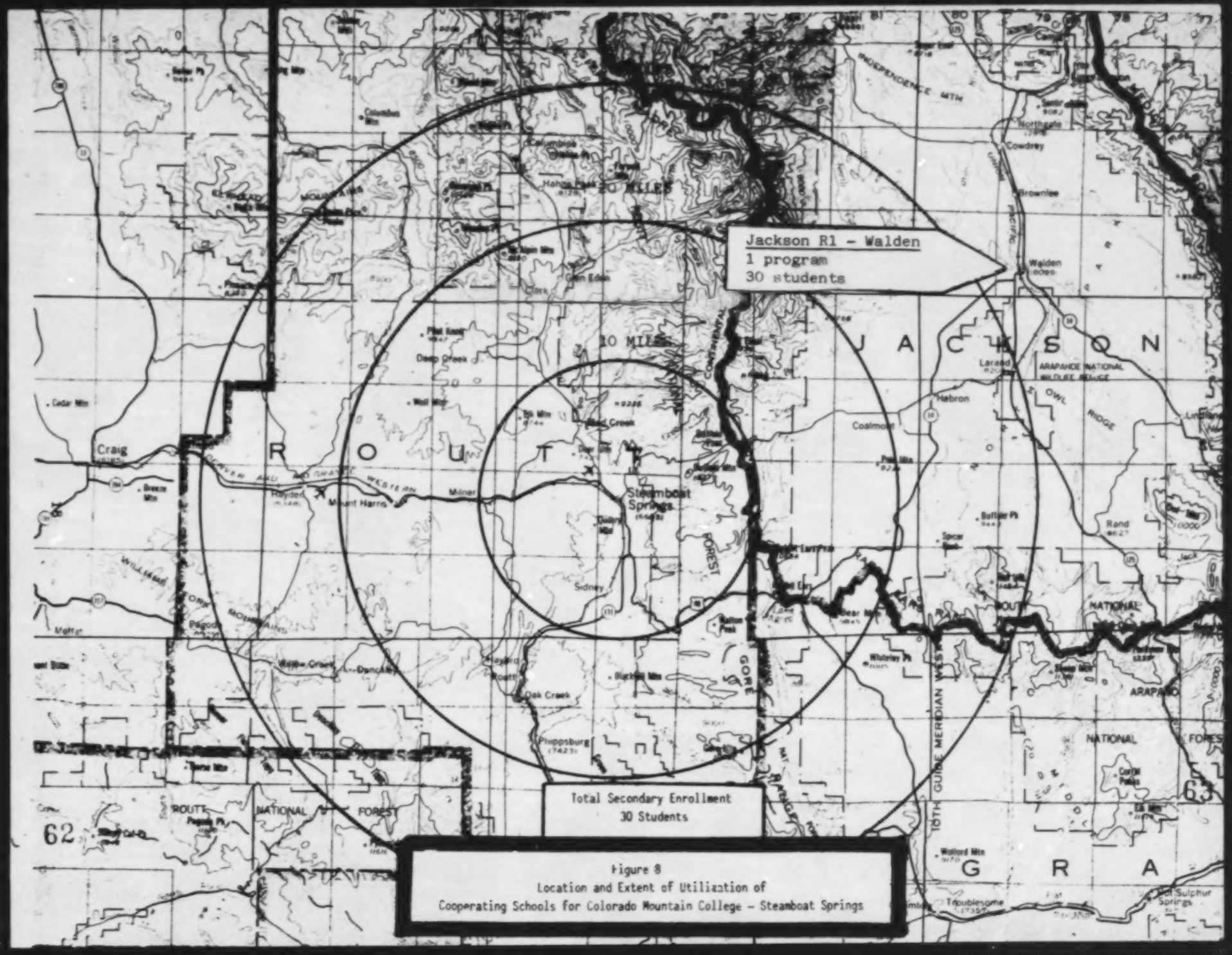


Figure 8
Location and Extent of Utilization of
Cooperating Schools for Colorado Mountain College - Steamboat Springs

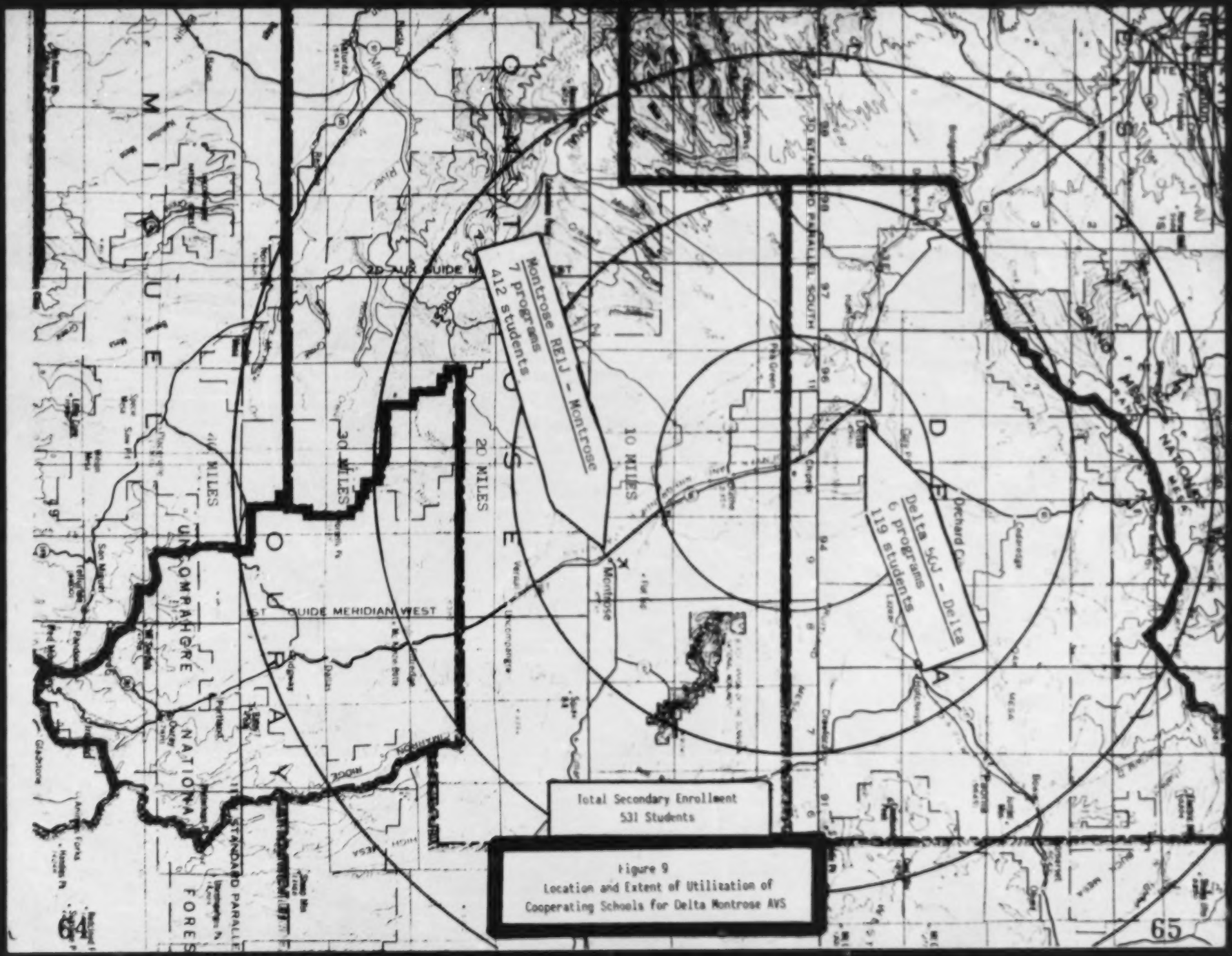


Figure 9
Location and Extent of Utilization of
Cooperating Schools for Delta Montrose AVS

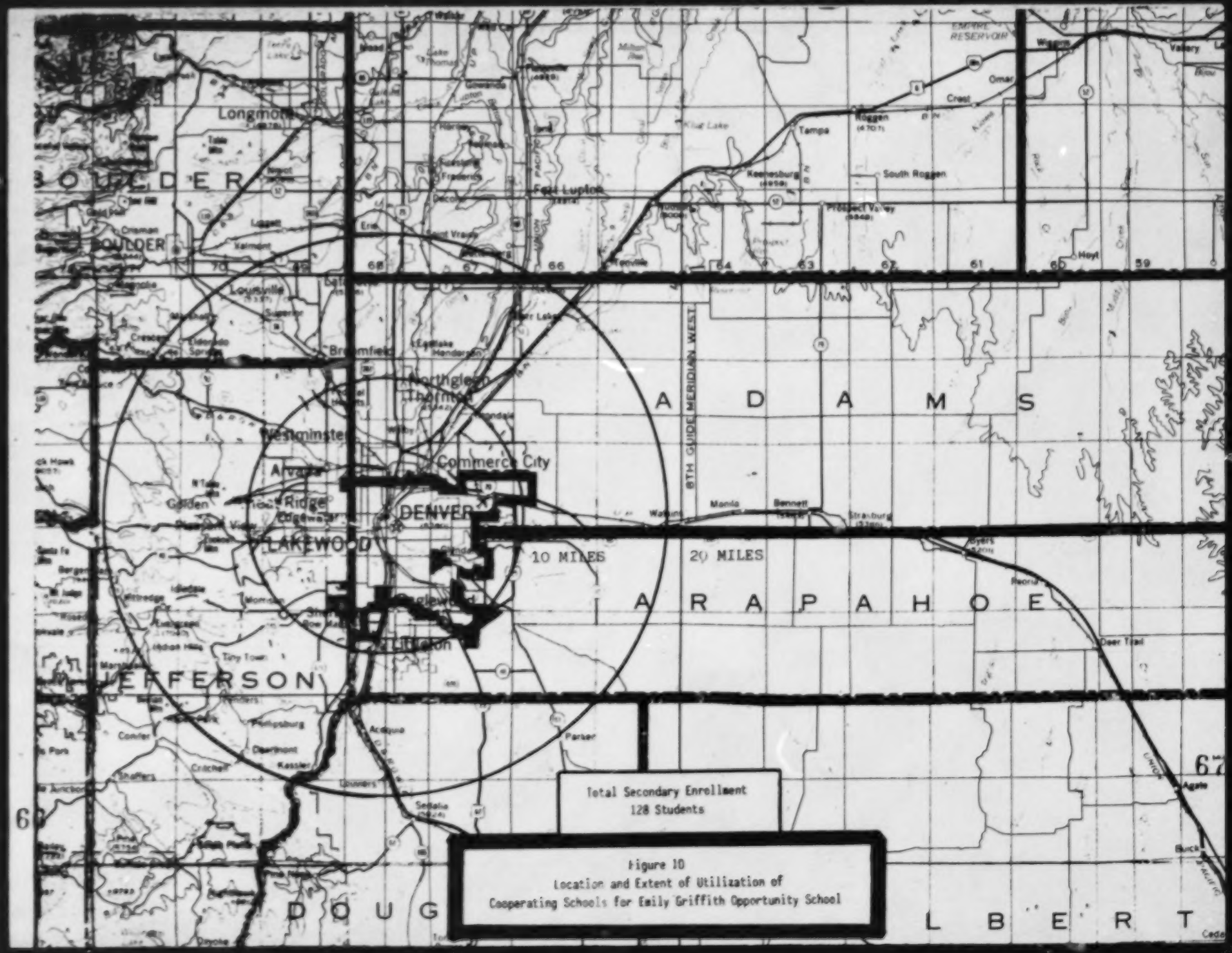
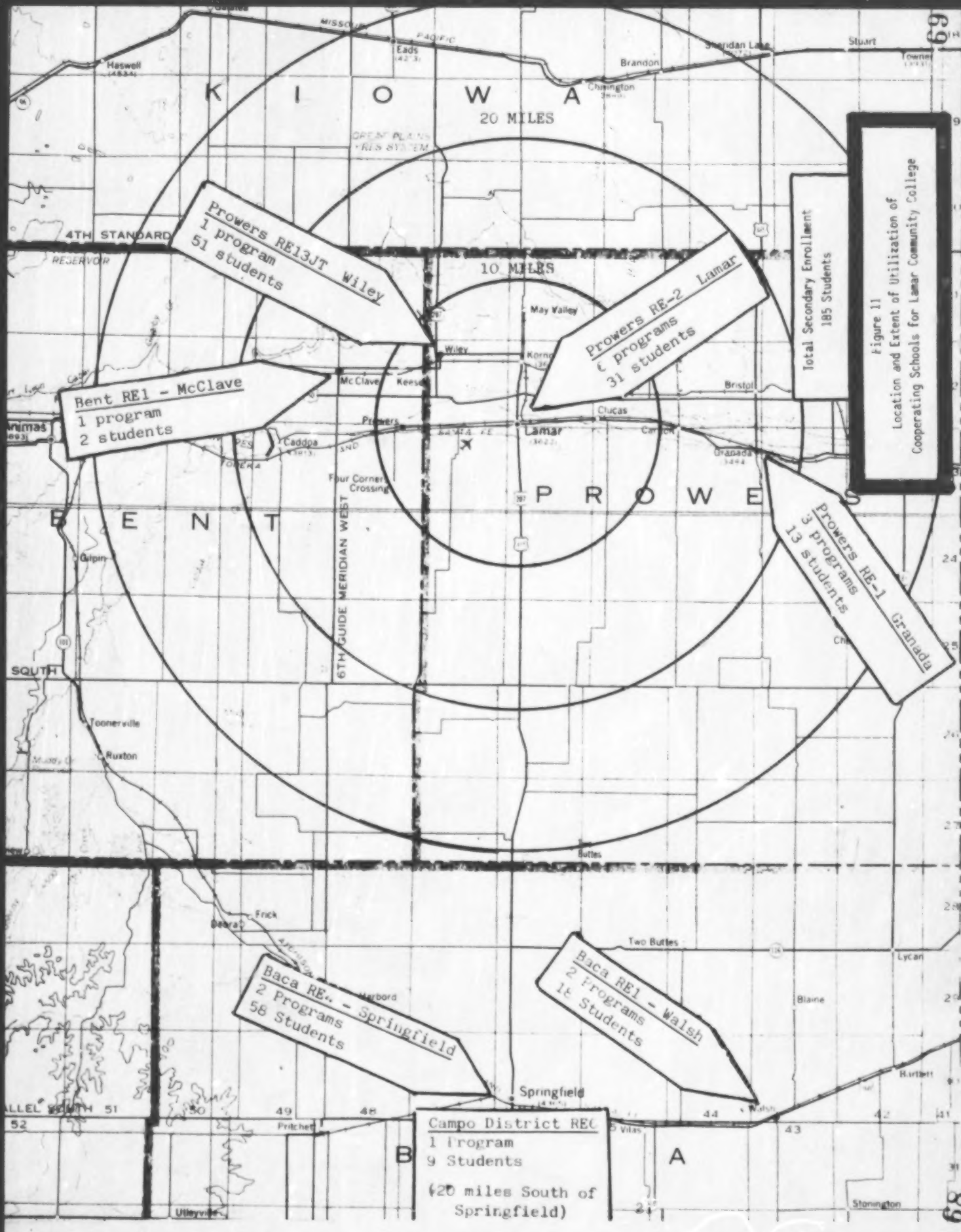


Figure 10
Location and Extent of Utilization of
Cooperating Schools for Emily Griffith Opportunity School


K I O W A
20 MILES
10 MILES
Prowers RE13JT Wiley
1 program
51 students
Prowers RE-2 Lamar
6 programs
31 students
Bent RE1 - McClave
1 program
2 students
Prowers RE-1 Granada
3 programs
13 students
Baca RE1 - Springfield
2 Programs
58 Students
Baca RE1 - Walsh
2 Programs
18 Students
Campo District REC
1 Program
9 Students
(20 miles South of
Springfield)
Total Secondary Enrollment
185 Students
Figure 11
Location and Extent of Utilization of
Cooperating Schools for Lamar Community College
B E N T
P R O W E R S
B A C A
6TH GUIDE MERIDIAN WEST
4TH STANDARD
Haswell
Eads
Brandon
Sheridan Lake
Stuart
Chivington
May Valley
Wiley
McClave
Keesee
Bristol
Cheraw
Prowers
Caddoa
Lamar
Granada
Four Corners Crossing
Gilpin
SOUTH
Toonerville
Ruxton
Buttes
Frick
Two Buttes
Lycan
Blaine
Springfield
Pritchett
Vilas
Stonington
Utleyville
Kurtzer
Walsh

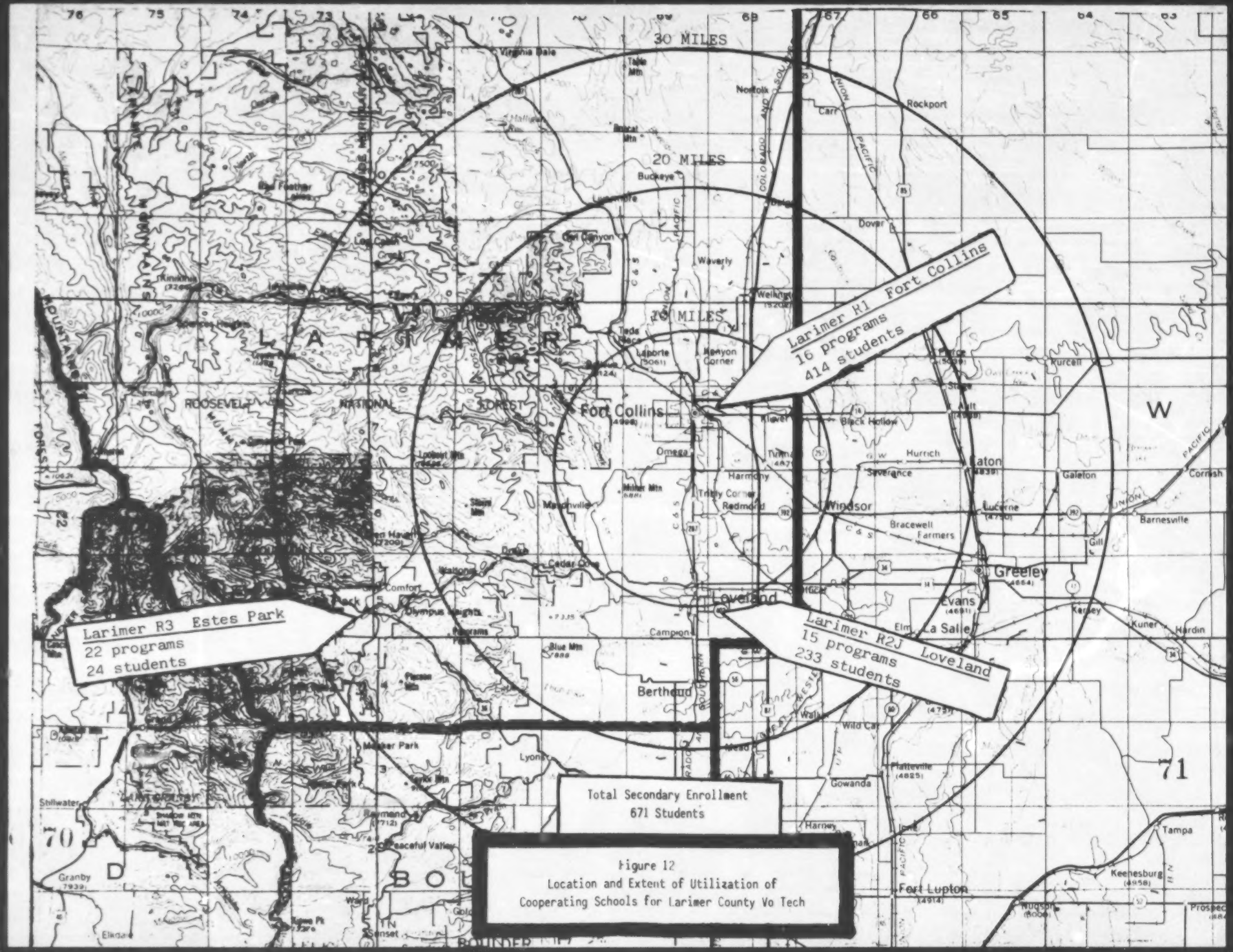


Figure 12
Location and Extent of Utilization of
Cooperating Schools for Larimer County Vo Tech

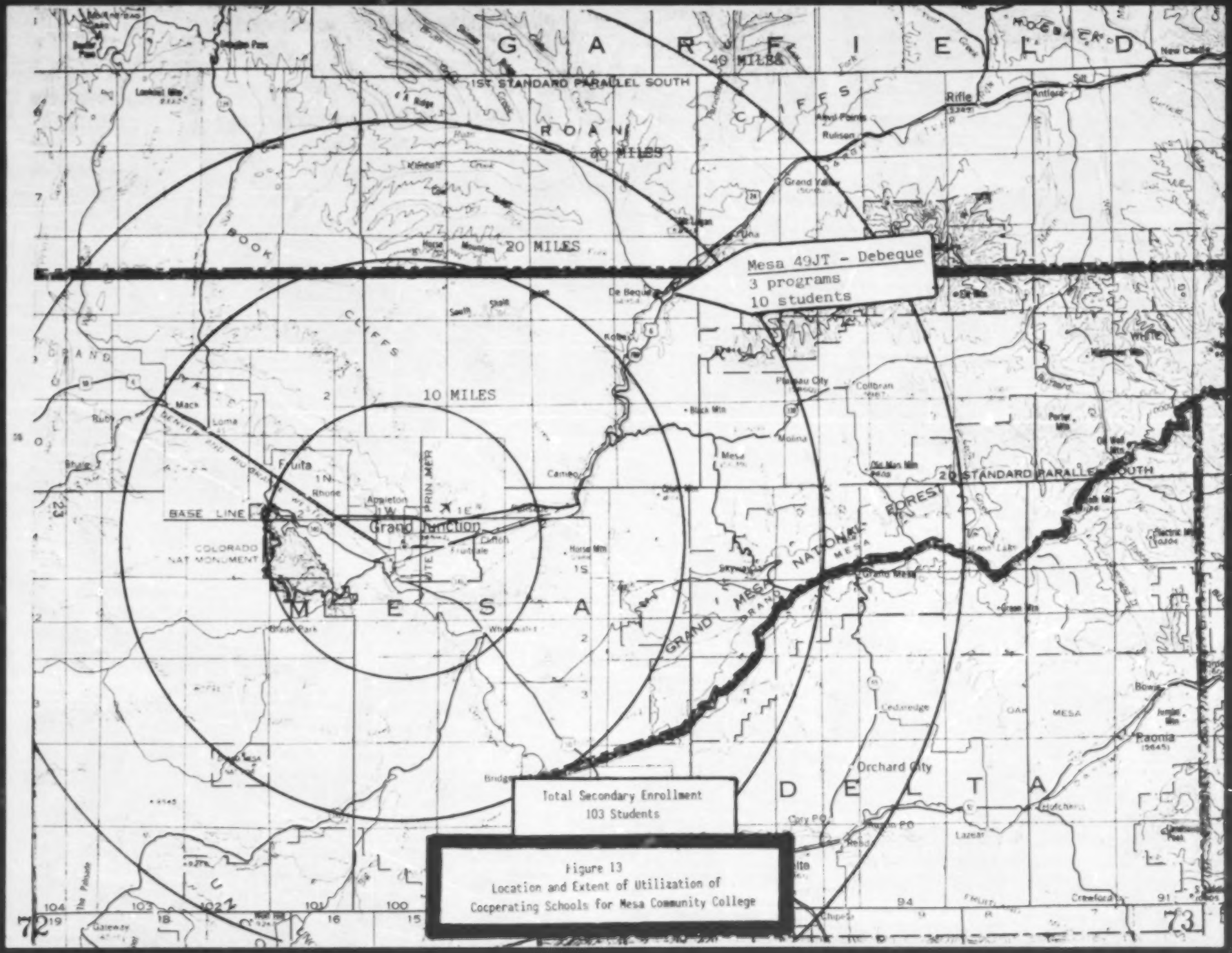


Figure 13
Location and Extent of Utilization of
Cooperating Schools for Mesa Community College

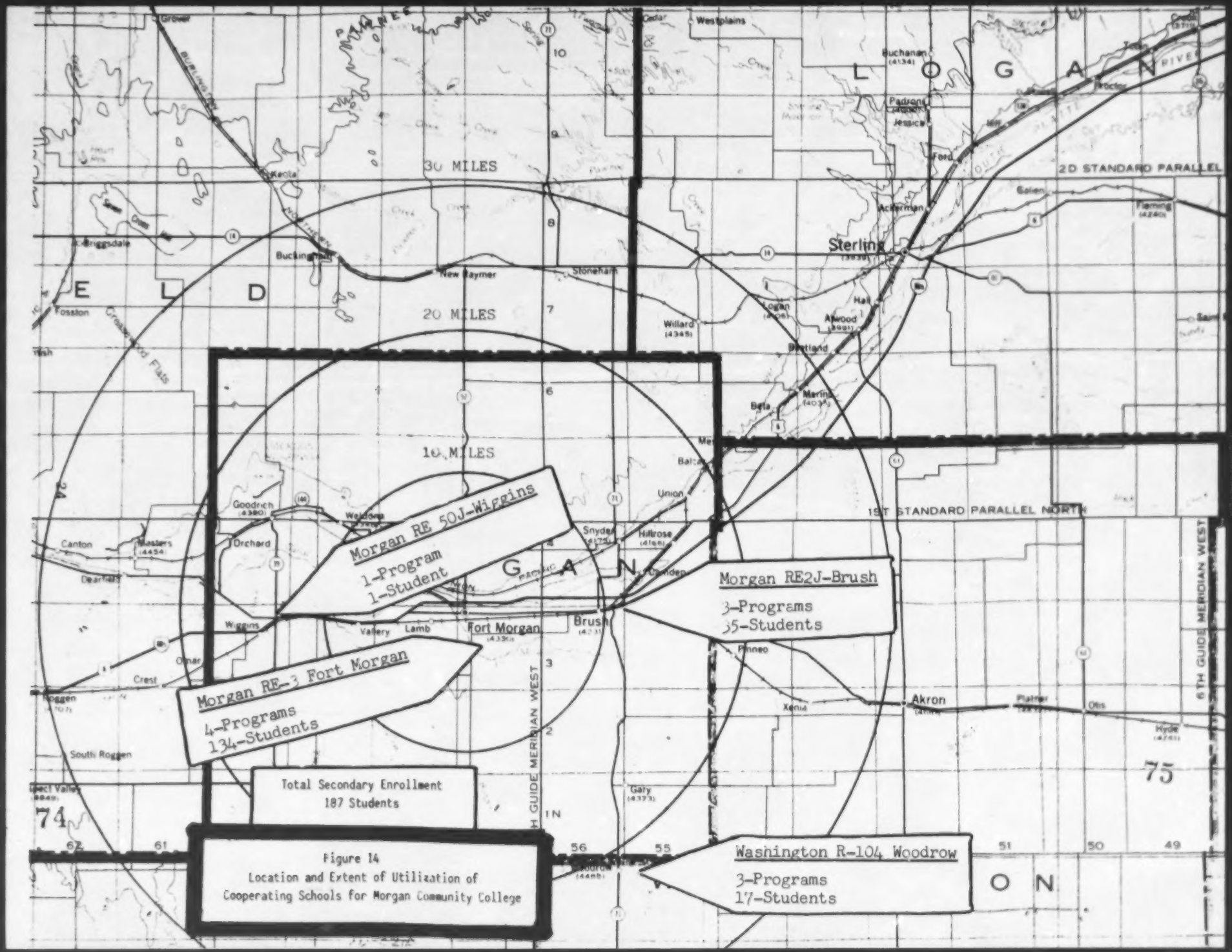


Figure 14
Location and Extent of Utilization of
Cooperating Schools for Morgan Community College

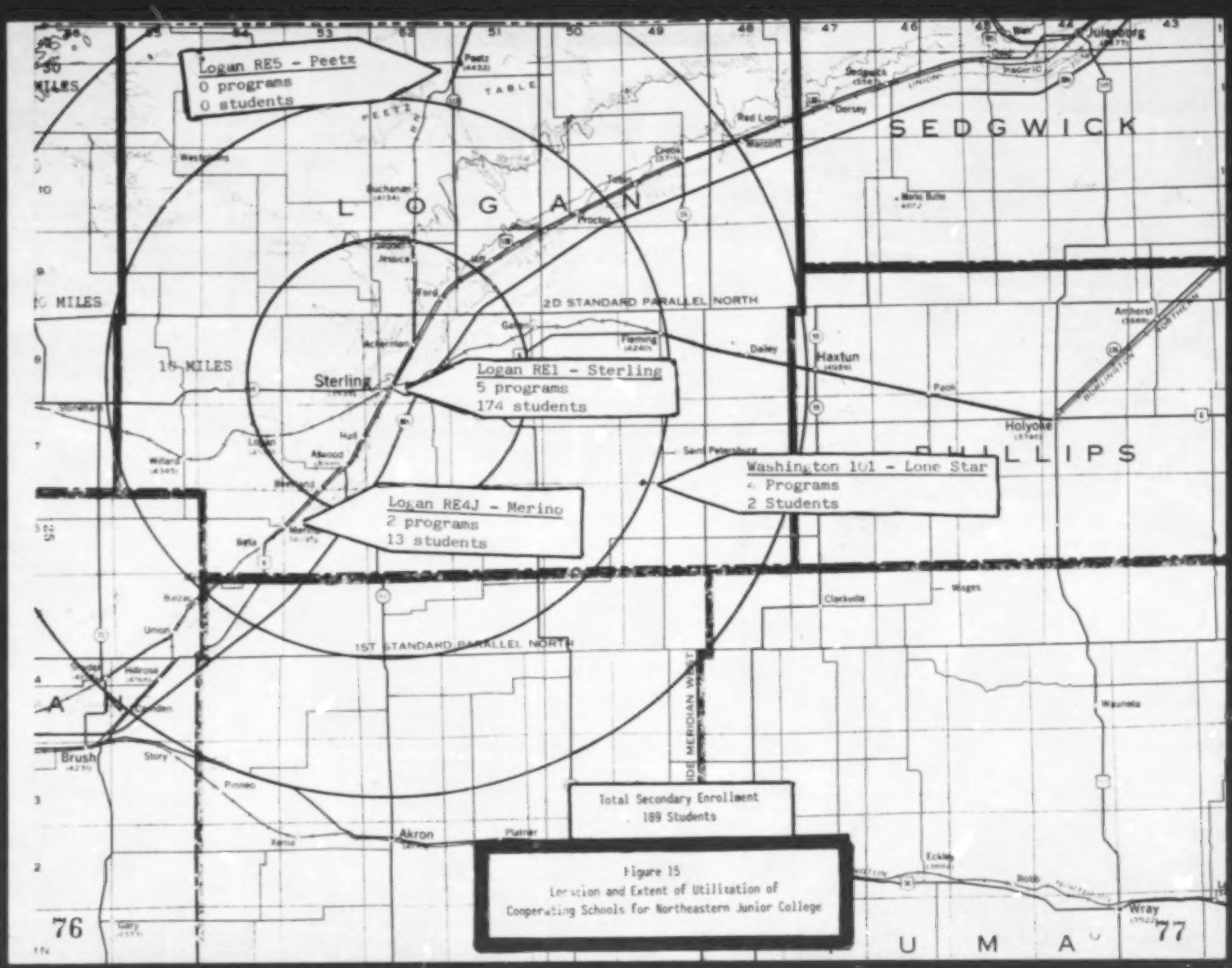


Figure 15
Location and Extent of Utilization of
Cooperating Schools for Northeastern Junior College

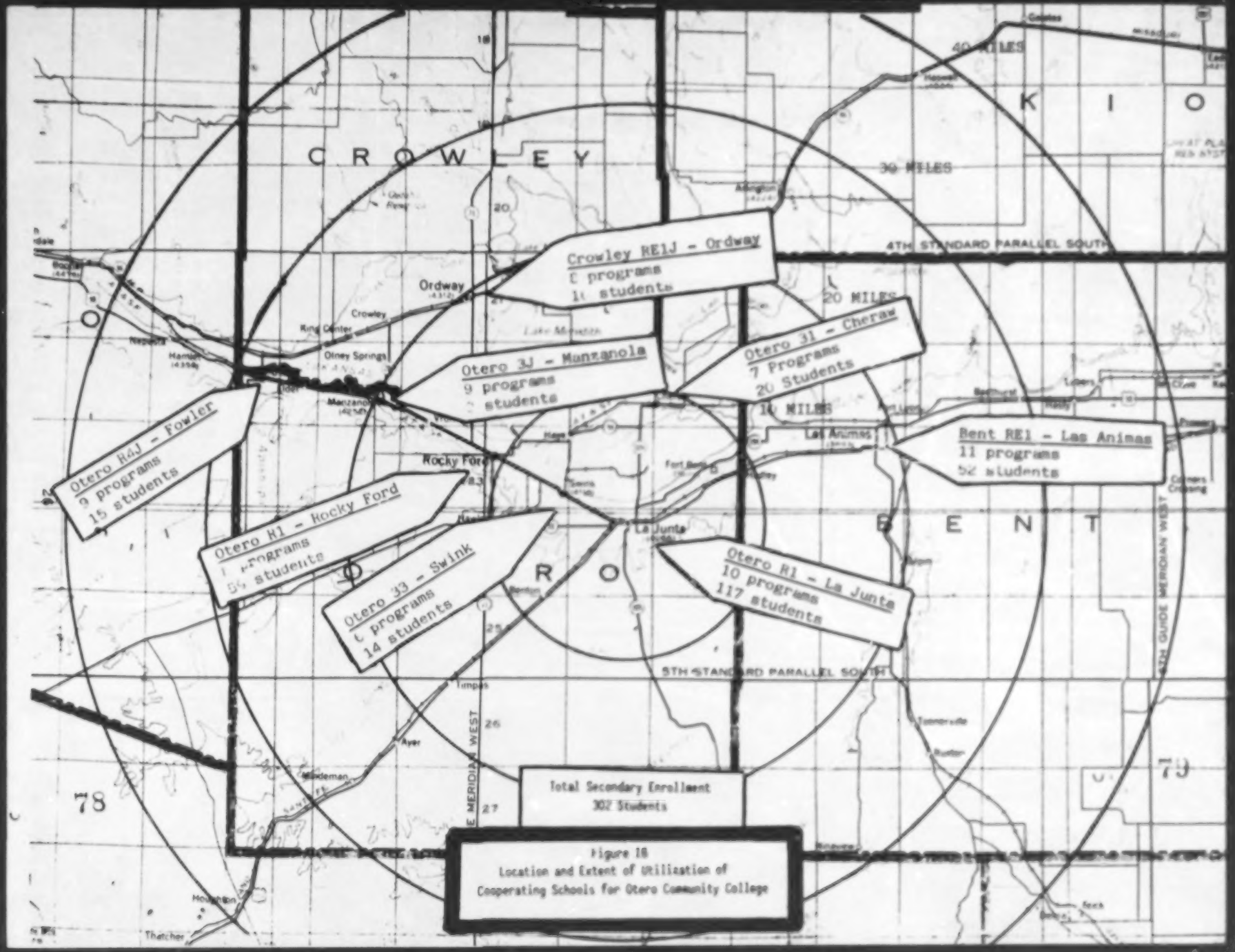


Figure 18
Location and Extent of Utilization of
Cooperating Schools for Otero Community College

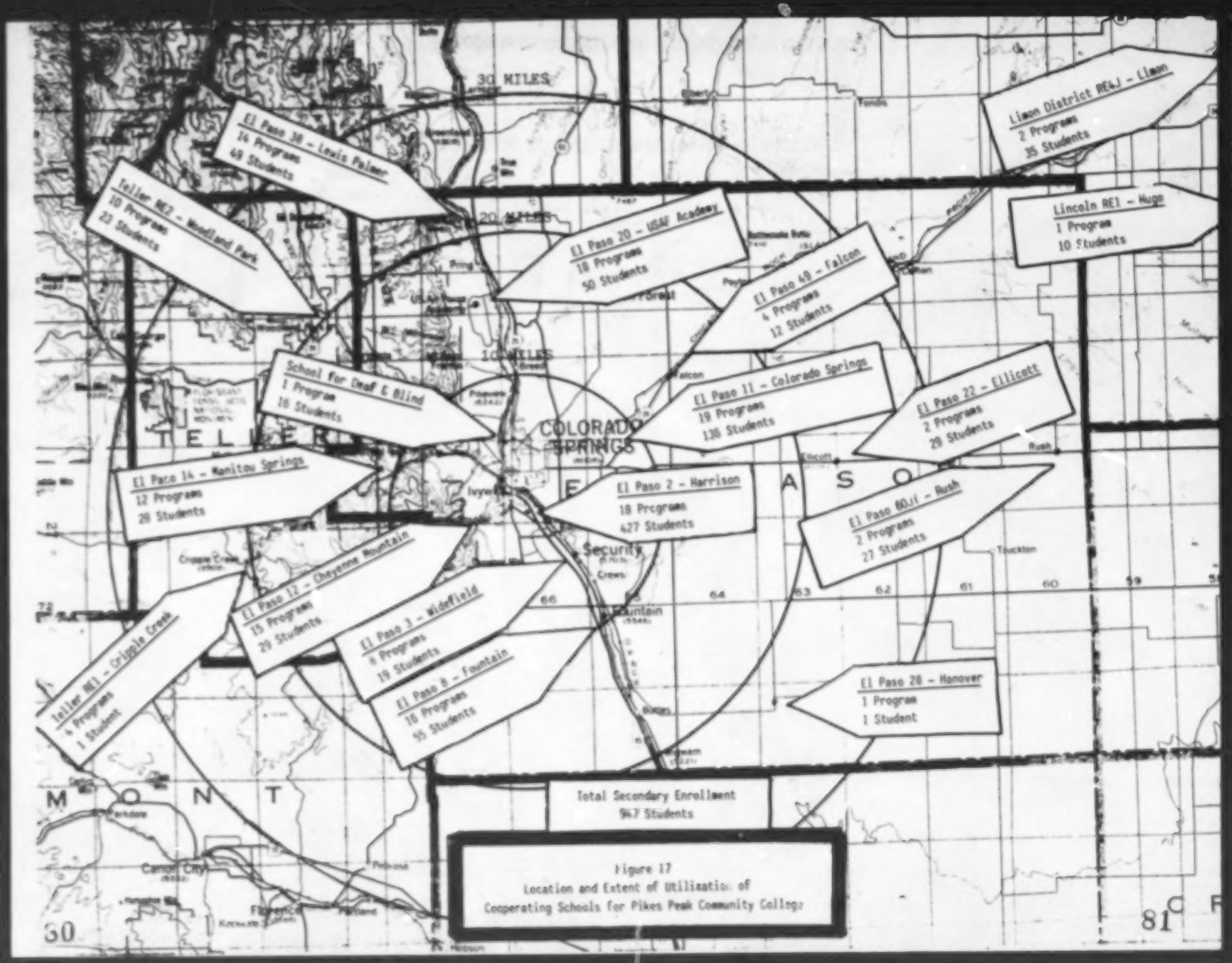


Figure 17
Location and Extent of Utilization of
Cooperating Schools for Pikes Peak Community College

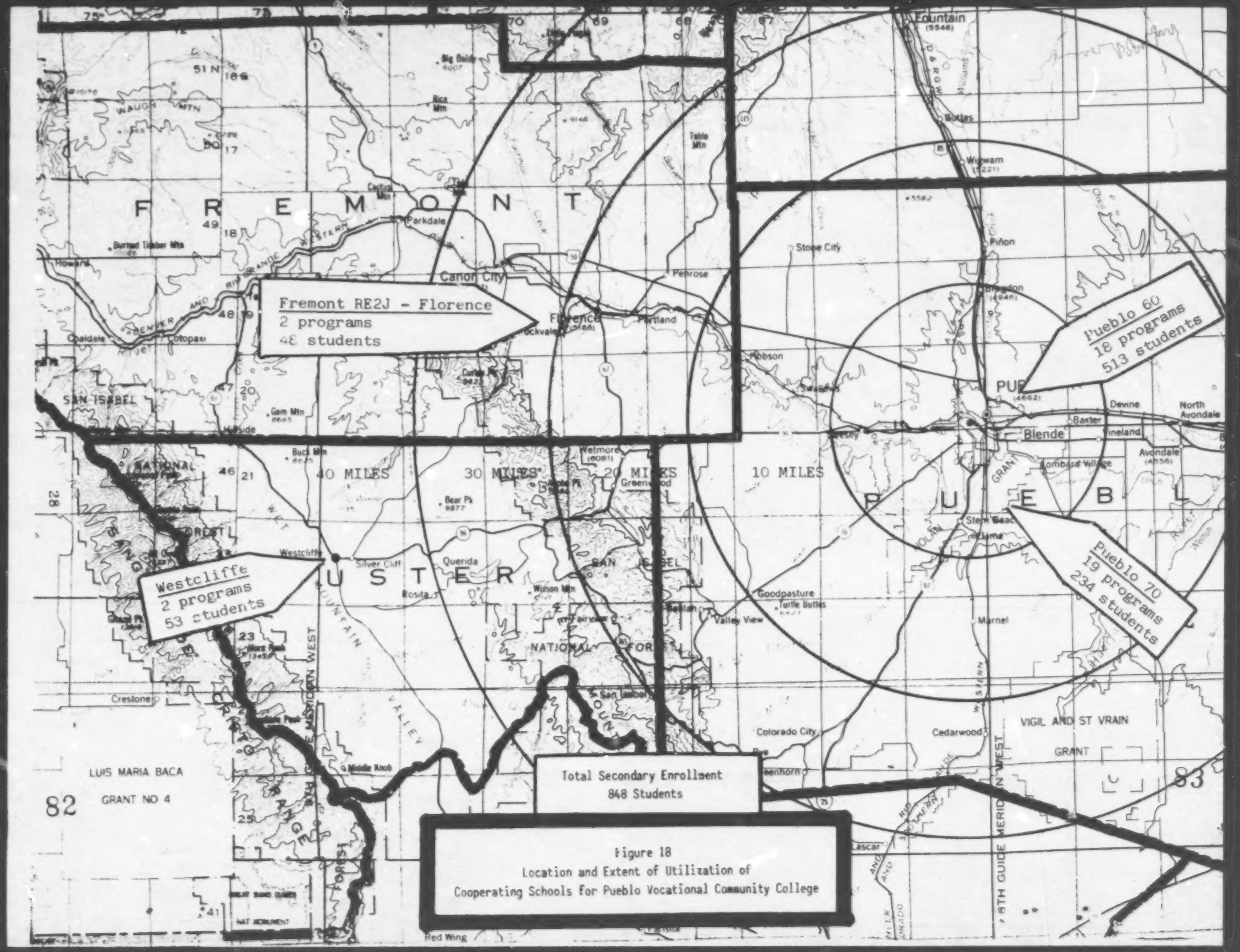
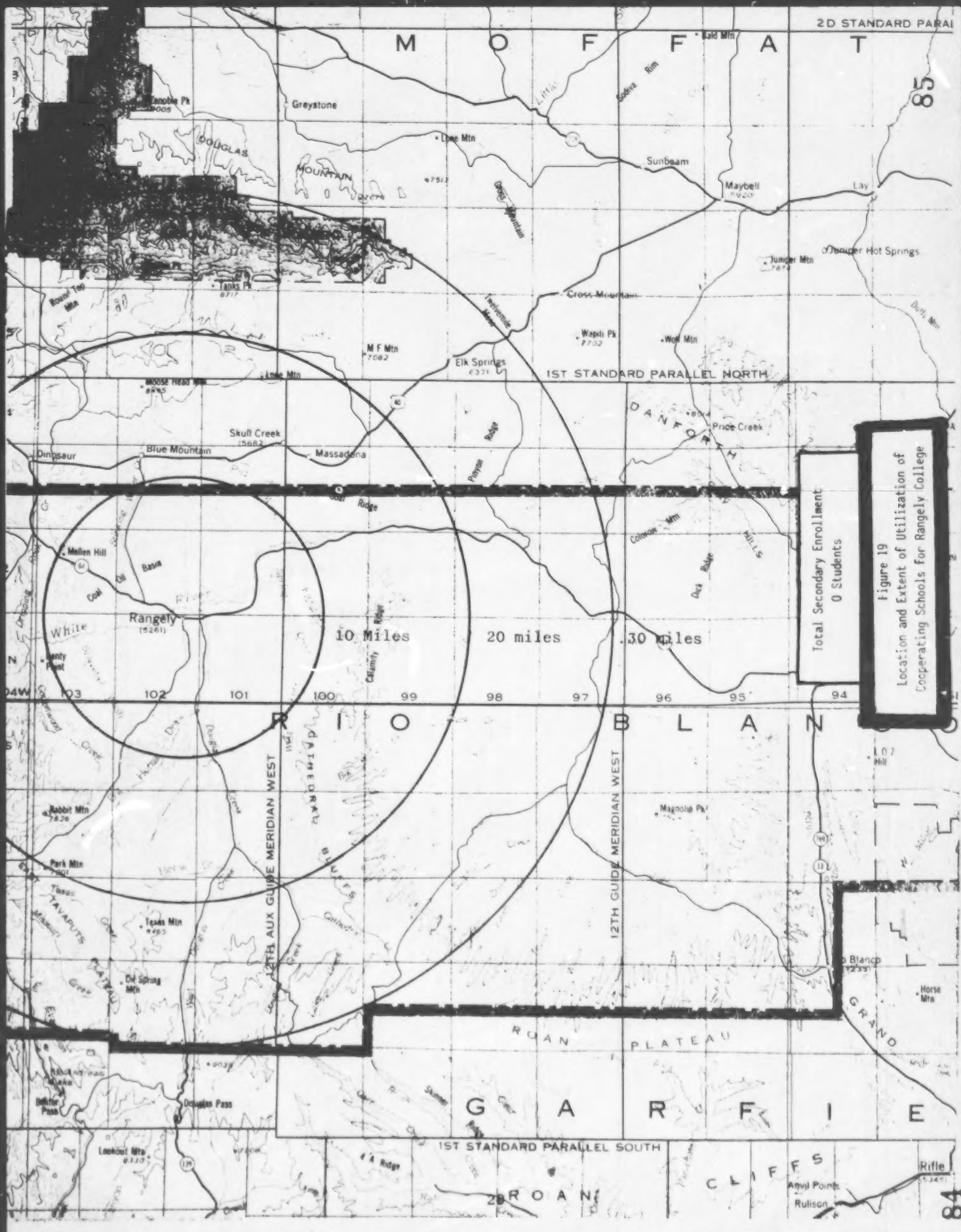


Figure 18
Location and Extent of Utilization of
Cooperating Schools for Pueblo Vocational Community College


2D STANDARD PARAL
MOFFAT
85
Greystone
Lone Mtn
Sunbeam
Maybell
Lay
Dinosaur Hot Springs
Juniper Mtn
Cross Mountain
Wapiti Pk
Wolf Mtn
Elk Springs
1ST STANDARD PARALLEL NORTH
Price Creek
Skull Creek
Dinosaur
Blue Mountain
Massadona
Mellen Hill
Rangely
10 Miles
20 miles
30 miles
Total Secondary Enrollment
0 Students
Figure 19
Location and Extent of Utilization of
Cooperating Schools for Rangely College
RIO BLANCO
6TH AUX GUIDE MERIDIAN WEST
12TH GUIDE MERIDIAN WEST
Rabbit Mtn
Park Mtn
Texas Mtn
Old Spring Mtn
Magnolia Pk
Blanco
Horse Mtn
ROAN PLATEAU
GARFIELD
1ST STANDARD PARALLEL SOUTH
Douglas Pass
Lookout Mtn
ROAN CLIFFS
Rifle
Anvil Points
Rulison
84

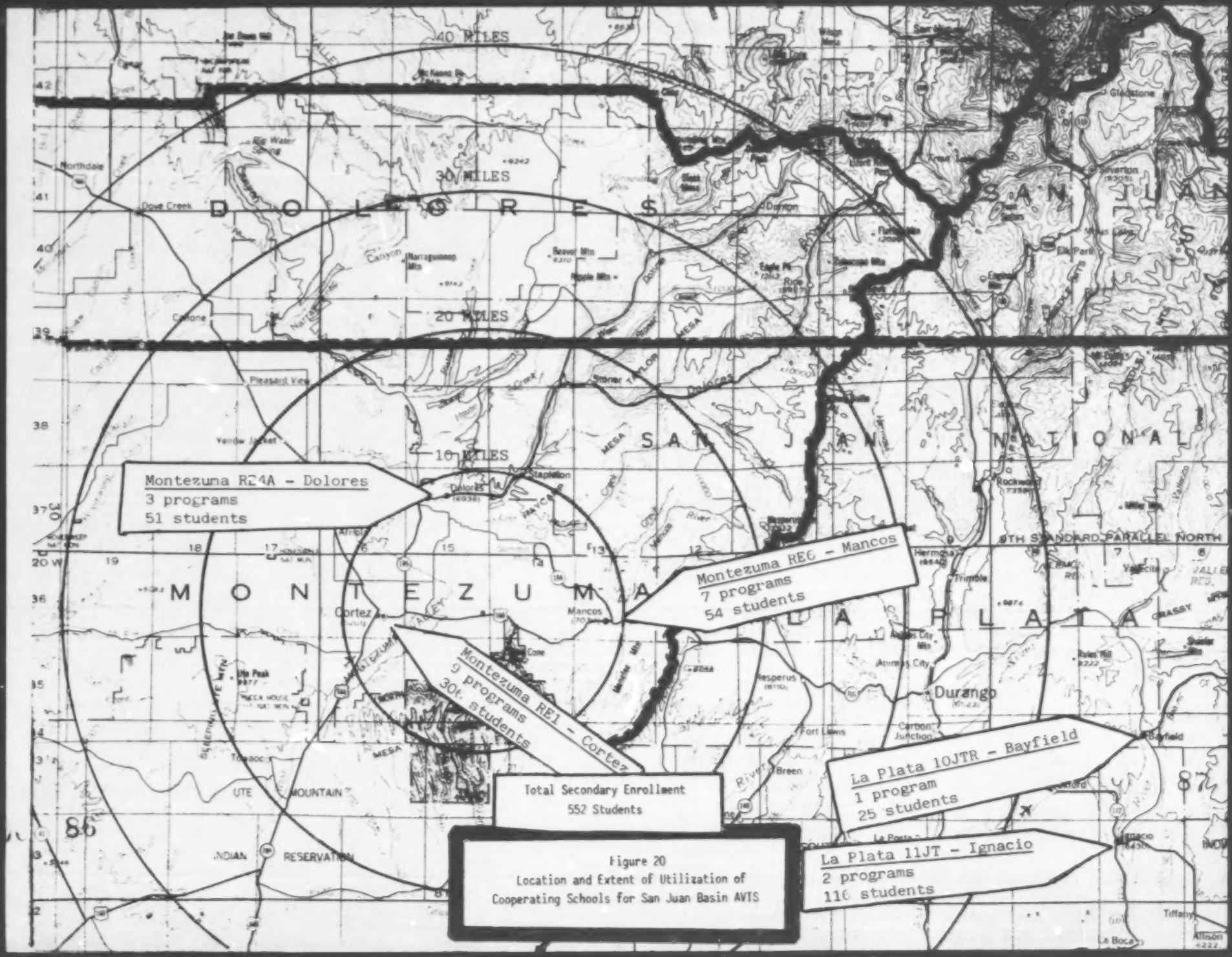
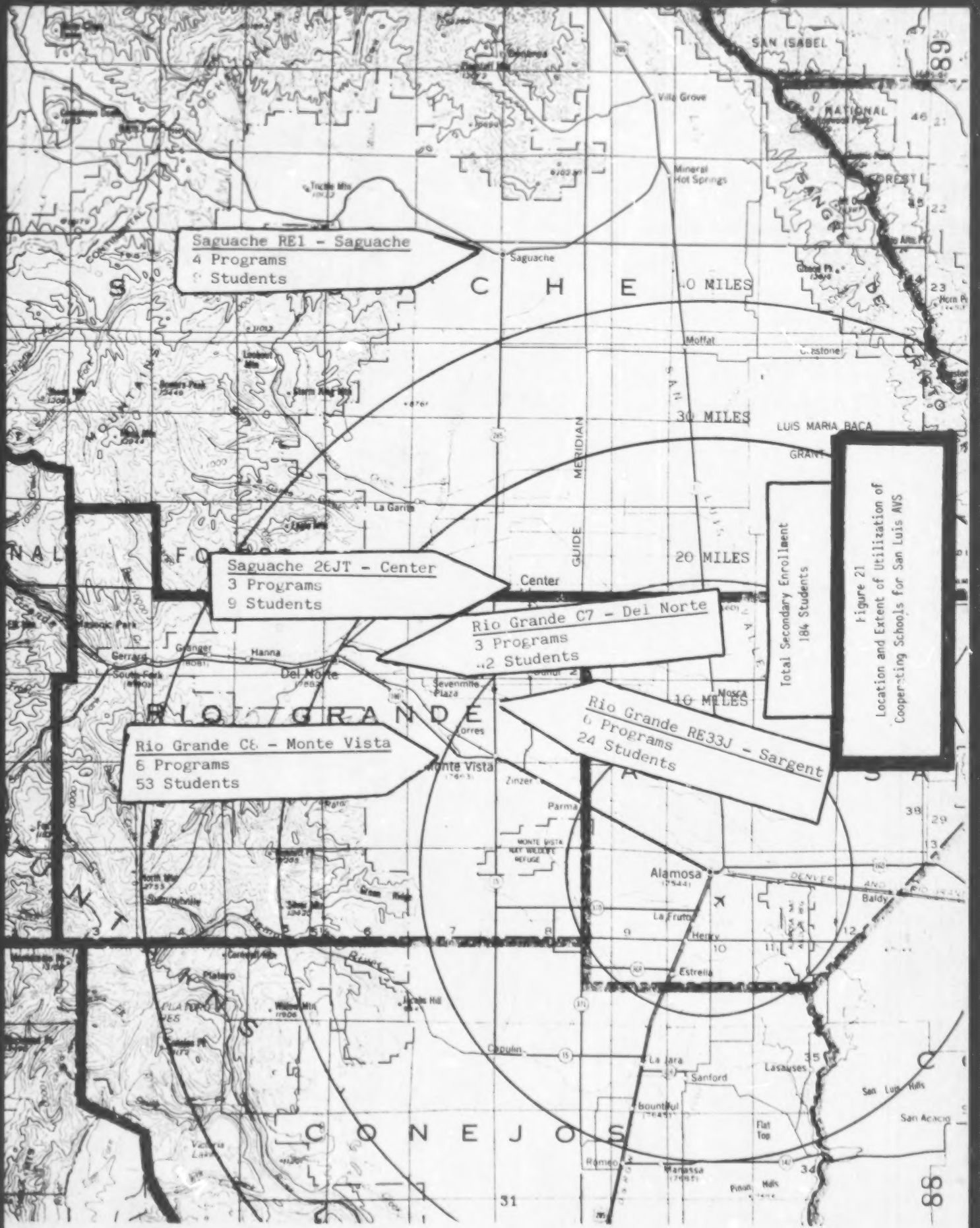


Figure 20
Location and Extent of Utilization of
Cooperating Schools for San Juan Basin AVTS


Saguache RE1 - Saguache
4 Programs
9 Students
Saguache 26JT - Center
3 Programs
9 Students
Rio Grande C7 - Del Norte
3 Programs
12 Students
Rio Grande RE33J - Sargent
6 Programs
24 Students
Rio Grande C8 - Monte Vista
6 Programs
53 Students
Total Secondary Enrollment
184 Students
Figure 21
Location and Extent of Utilization of
Cooperating Schools for San Luis AVS
30 MILES
20 MILES
10 MILES
Saguache
Center
Del Norte
Monte Vista
Alamosa
Sargent
Moffat
Mosca
Hooper
Estrella
Sanford
La Jara
Manassa
Romeo
Capulin
Parma
Zinzer
Baldy
Lasauses
Flat Top
San Luis Hills
San Acacio
Pinon Hills
Villa Grove
Mineral Hot Springs
La Garita
Sevenmile Plaza
Platoro
Sanchez Reservoir
MONTE VISTA NATIONAL WILDLIFE REFUGE
LUIS MARIA BACA GRANT
GUIDE MERIDIAN
RIO GRANDE
CONEJOS

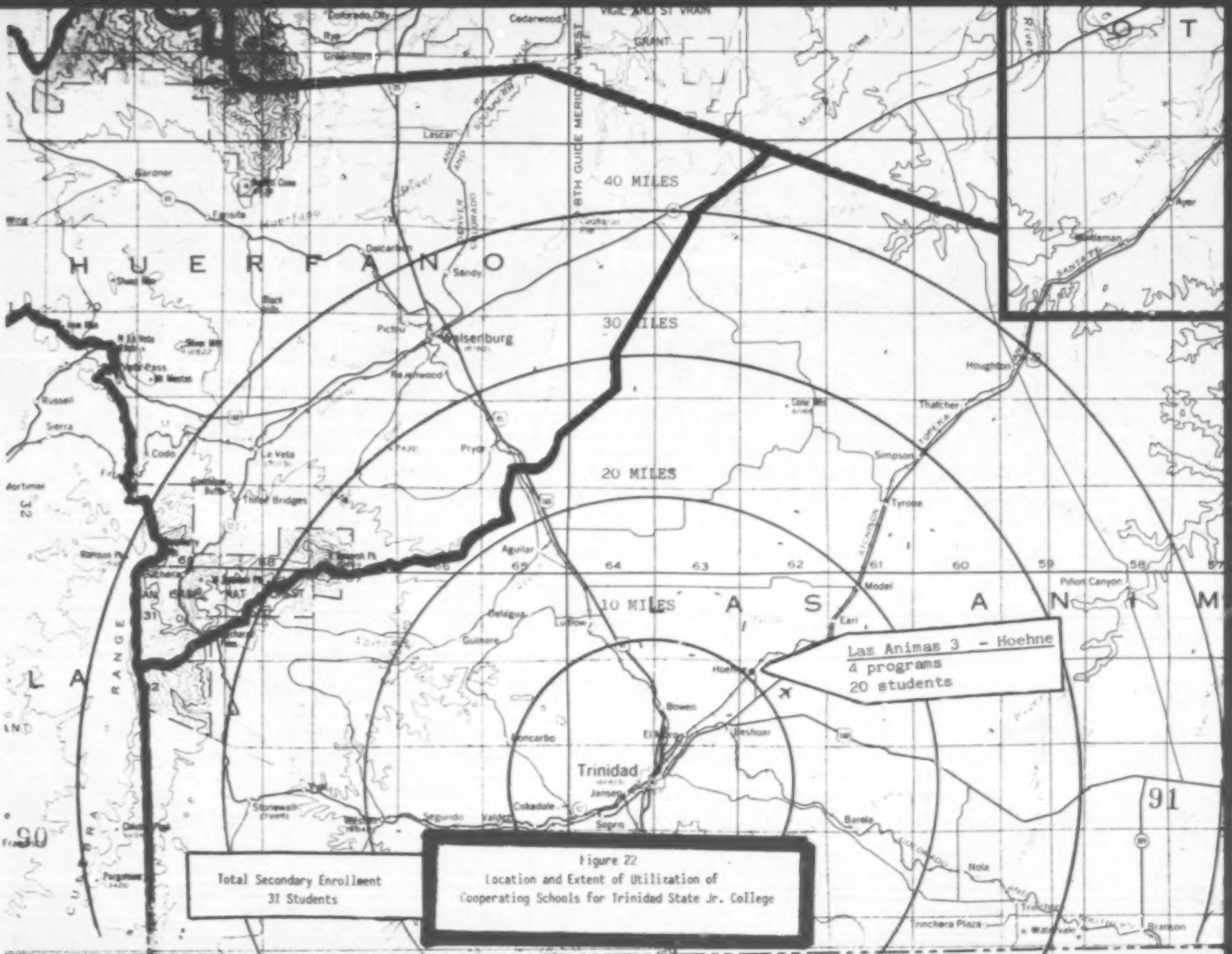


Figure 22
Location and Extent of Utilization of
Cooperating Schools for Trinidad State Jr. College

Figure 23
Location and Extent of Utilization of
Cooperating Schools for Warren Vo Tech

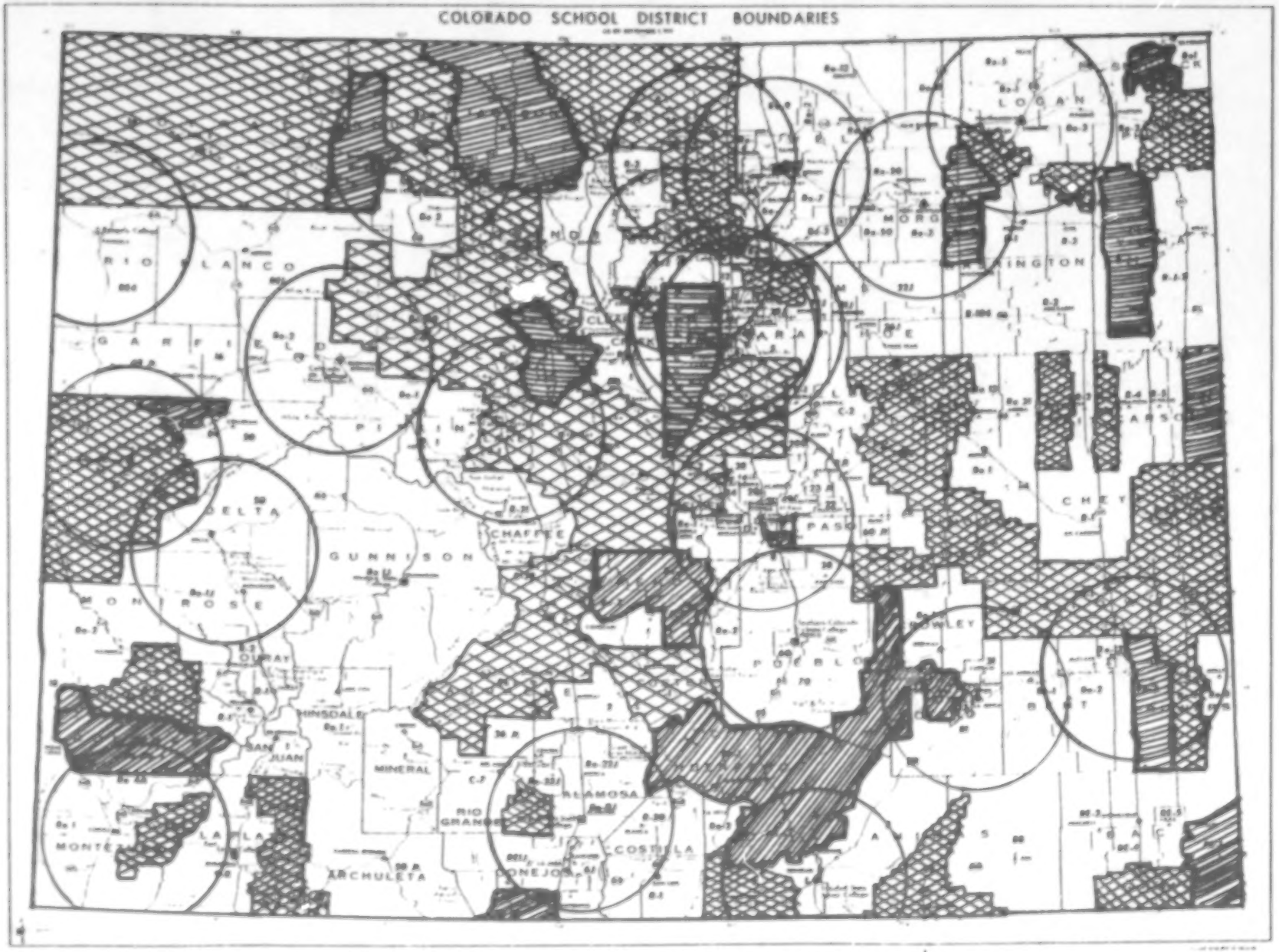

COLORADO SCHOOL DISTRICT BOUNDARIES
RIO BLANCO
GARFIELD
LOGAN
DELTA
GUNNISON
CHAFFEE
MONTROSE
OURAY
HINSDALE
SAN JUAN
MINERAL
RIO GRANDE
ALAMOSA
MONTE
LA LA
ARCHULETA
CONEJOS
COSTILLA
PUEBLO
CHEY
Schools not responding to survey.
Schools that feel they are not being offered adequate vocational education program.
30 mile radius of AVS.

Figure 24

Discrepancy Analysis

The second part of the management information data is presented in Tables 1 through 8, "Program Completer Discrepancy Matrix by Planning Region." This information provides the reader with insight into the relationship between the placement rate and the total need or surplus of jobs within the planning region. This information was taken from the Colorado Occupational Information Coordinating Committee's Supply and Demand Matrix and the Colorado State Board for Community Colleges and Occupational Education's 1979 Cost Effectiveness Study.

Correlation coefficients indicated a low relationship between placement rate and need. For the Northeast Planning District, r = .26; Western Slope, r = .34; Denver Metropolitan Area, r = .05; and Southeast Planning Region, r = -.01. A coefficient of 1.0 would indicate a perfect relationship; whereas a coefficient of zero (0.0) indicates no relationship. Further, correlation coefficients were calculated based upon the ratio of supply to demand (number of jobs available for each trained worker) as it relates to placement. This ratio is calculated by dividing the supply, or total number of students completing a program, into the need or surplus labor market projection provided in the supply and demand matrix. This is a ratio of the number of jobs available for each student completing the program. The following are the correlation coefficients based upon this analysis: Northeast District, r = .35; Western Slope, r = .30; Denver Metropolitan Area, r = -.03; and Southeast Planning District, r = -.02. Again, the coefficients indicate little relationship between the placement rate and the number of jobs available per graduate.

These figures can best be understood if looked at in terms of the amount of variance in the job placement explained by the labor demand

data. For example, the correlation coefficient for the Western Slope (r=.34) indicates that approximately 11.6 percent of the variance in placement rates for the programs offered in the Western Planning Region can be explained by the demand for the acceptance (as indicated in the regional labor demand report). This means that other factors account for 88.4 percent of the variance in placement rates. These factors could be selection criteria, quality of instruction, job development services, or just plain chance. At any rate, the data does not support the use of demand information as a sole criterion for finding programs.

The discrepancy matrices are provided for each planning region and for each school district within the planning region by program area. This information indicates the programs available to students in various school districts, the number of students completing the program, the percent of students placed, and the relative need or surplus of employees in that particular program area.

Table 9 provides a comparison between the placement rate and completion rate for area vocational school programs versus the state average for the selected program. The information provided indicates some differences in specific programs, but in general, shows no real differences when considering all programs. Completion and placement rates are slightly higher for four programs and slightly lower for one program. Only in the case of production agriculture are there substantial differences in placement rates.

Table 10 gives cost comparison among various types of delivery systems. A random sample of schools from each type of delivery system was drawn. The state totals are based on the average cost for all programs. Large independent local education agencies were defined as

school districts having over 2,000 students enrolled in secondary programs, small independent schools were those with less than 500 secondary students enrolled.

The comparison shows that the cost per student for vocational education in small schools is much higher in most cases, than it is in large districts or in area vocational schools. In comparing area vocational schools with large districts, production agriculture and auto mechanics programs are more costly at the area vocational schools, but cooperative distributive education, data processing, and general clerical programs are less expensive for the area vocational school.

Table 1

PROGRAM COMPLETER DISCREPANCY MATRIX - TOTALS
DENVER METROPOLITAN PLANNING REGION

	Program	# of Programs	Total Complete Program	Total Placed	% Rate	Need or Surplus
01.0100	Ag Production	6	70	15	21.4	87
01.0500	Ornamental Horticulture	5	56	26	46.4	158
04.0000	Coop D.E.	13	1218	658	54.0	19910
04.0200	Apparel And Accessories	1	47	15	31.9	(1231)
07.0101	Dental Assistant	1	9	1	11.1	386
07.0303	Nurse Assistant	4	133	48	36.1	5209
07.0404	Rehabilitation Aide	1	35	6	17.1	(749)
07.0603	Optometrist Assistant	1	0	0	0	32
07.0700	Health Cluster	4	123	28	22.7	----
09.0201	Child Care	5	122	46	37.7	663
09.0202	Clothing Management	3	38	10	26.3	----
09.0203	Food Management	5	164	78	47.6	----
09.0205	Institutional Management	1	1	0	0	2887
09.2992	H.E.R.O.	4	586	322	54.9	----
09.2993	Multi - Occ	1	56	5	9.0	----
14.0100	Accounting	9	650	177	27.0	2845
14.0200	Data Processing	7	193	48	25.0	412
14.0201	Key Punch	1	12	12	100.0	412
14.0202	Computer Operation	1	22	20	91.0	295
14.0203	Programming	1	14	10	71.0	93
14.0300	General Clerical	18	2595	916	35.0	9529
14.0700	Steno & Secretarial	9	523	251	48.0	8362
16.1012	Aircraft Maintenance	1	0	0	0	(752)
16.1081	Electronic Tech	7	136	31	22.8	513
16.1082	Communications	1	2	2	100.0	----
16.1084	Radio & T.V. Repair	5	41	12	29.3	693
16.1101	Environmental Tech	1	0	0	0	----
16.1105	Air Conditioning	1	3	0	0	
16.1992	Drafting	7	126	41	32.5	16
16.0994	Radio & TV Broadcasting	1	8	0	0	----
17.0302	Auto Mechanics	12	477	205	43.0	2705
17.2305	Sheet Metal	2	7	4	57.0	146
17.2306	Combination Welding	10	195	82	42.0	(982)
17.2602	Cosmetology	10	150	64	43.0	2203
17.0301	Body and Fender	7	137	58	42.0	(760)
17.1001	Carpentry	4	47	30	64.0	329
17.1004	Masonry	3	25	14	56.0	(79)
17.1900	Graphic Arts	9	130	55	42.0	218
17.3100	Small Engine Repair	7	63	15	24.0	(282)
17.1099	Building Trades	7	113	60	53.0	2546
17.3500	Upholstering	1	7	5	71.0	(62)
17.0399	Automotive Services	1	13	3	23.0	----

* Data came from the State Board for Community Colleges and Occupational Education Cost Effective Model Report (3/3/80) and the State Occupational Information Coordinating Committee Demand Matrix 1979.

Table 1
PROGRAM COMPLETER DISCREPANCY MATRIX - TOTALS
DENVER METROPOLITAN PLANNING REGION
(continued)

	Program	# of Programs	Total Complete Program	Total Placed	% Rate	Need or Surplus
17.1002	Electricity	3	35	16	45.7	(143)
17.2302	Machine Shop	7	92	57	61.9	(304)
17.0600	Business Machine Maintenance	2	3	2	66.7	164
17.3601	Cabinet Making	1	20	6	30.0	134
17.0900	Commercial Photography	2	12	2	16.6	(89)
17.1401	Industrial Technology	1	8	4	50.0	513
17.2102	Watchmaking and Repair	1	0	0	0	146
17.2304	Metal Trades	1	43	14	32.5	146
17.0200	Appliance Repair	3	22	6	27.3	(75)
17.0700	Commercial Art	2	12	4	33.3	276
17.1007	Plumbing and Pipefitting	3	9	3	33.3	105
17.1009	Glazing	1	15	9	60.0	93
17.1200	Deisel Mechanic	1	7	3	42.9	(899)
17.2601	Barbering	1	0	0	0	533

Table 2

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
DENVER METROPOLITAN PLANNING REGION

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Adams District 1	04.0000	Coop D.E.	33	22	66.7	19910	
	09.0201	Child Care	16	14	87.5	663	
	14.0100	Accounting	29	6	20.7	2845	
	14.0300	General Clerical	16	2	12.5	9529	
	14.0700	Steno & Secretarial	27	12	44.4	8362	
	16.1081	Electronic Tech.	12	4	33.3	513	
	16.1992	Drafting	10	6	60.0	16	
	17.0302	Auto Mechanics	6	2	33.3	2705	
	17.2306	Combination Welding	11	4	36.4		(982)
Adams 12 - East Lake	17.2602	Cosmetology	12	9	75.0	2203	
	09.2992	H.E.R.O.	48	22	45.8		
	14.0100	Accounting	121	26	21.5	2845	
	14.0300	General Clerical	139	48	34.5	9529	
	14.0700	Steno & Secretarial	65	43	66.1	8362	
	16.1081	Electronic Tech.	11	3	27.3	513	
	16.1992	Drafting	15	10	66.7	16	
	17.0301	Body and Fender	26	10	38.5		(700)
	17.0302	Auto Mechanics	40	18	45.0	2705	
	17.1001	Carpentry	13	9	69.2	329	
	17.1002	Electricity	10	8	80.0		(143)
	17.1004	Masonry	7	6	85.7		(79)
	17.1900	Graphic Arts	17	7	41.2	218	
	17.2306	Combination Welding	10	8	80.0		(982)
	17.2602	Cosmetology	20	7	35.0	2203	
	17.3100	Small Engine Repair	0	0	0		(292)
Career Enrichment Park	04.0000	Coop D.E.	95	63	66.3	19910	
Adams 14 - Commerce City	14.0100	Accounting	47	30	63.8	2845	
	14.0200	Data Processing	12	9	75.0	412	
	14.0300	General Clerical	55	44	80.0	9529	
	17.0302	Auto Mechanics	11	2	18.2	2705	
	17.0199	Building Trades	12	7	58.3	2546	
	17.2302	Machine Shop	18	3	16.7		(304)
	17.2602	Cosmetology	22	7	31.8	2203	
Adams 27J - Brighton	01.0100	Ag Production	15	5	33.3	87	
	04.0000	Coop D.E.	43	30	69.8	19910	
	14.0200	Data Processing	20	1	5.0	412	
	14.0300	General Clerical	30	16	53.3	9529	
	14.0700	Steno & Secretarial	4	1	25.0	8362	
	16.1081	Electronic Tech.	8	0	0	513	
	16.1992	Drafting	10	1	10.0	16	
	17.0302	Auto Mechanics	35	24	68.6	2705	
	17.1900	Graphic Arts	8	2	25.0	218	
	17.2306	Combination Welding	13	4	30.1		(982)

Table 2

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
DENVER METROPOLITAN PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	17.3100	Small Engine Repair	5	0	0		(292)
Adams 29J - Bennett	01.0100	Ag Production	1	0	0	87	
	14.0300	General Clerical	10	5	50.0	9529	
Adams 50 - Westminster	01.0500	Ornamental Horticulture	6	2	33.3	158	
	04.0000	Coop D.E.	64	35	54.7	19910	
	07.0303	Nursing Assistant	31	14	45.2	5209	
	09.0203	Food Management	19	4	21.0		
	09.1992	H.E.R.O.	19	6	31.6		
	14.0100	Accounting	15	2	13.3	2845	
	14.0200	Data Processing	84	12	14.3	412	
	14.0300	General Clerical	93	42	45.2	9529	
	14.0700	Steno & Secretarial	18	10	55.6	8362	
	16.1084	Radio - TV	23	4	17.4	693	
	16.1992	Drafting	17	7	41.2	10	
	17.0301	Body and Fender	13	7	53.8		(760)
	17.0302	Auto Mechanics	24	8	33.3	2705	
	17.0600	Business Machine Maintenance	2	1	50.0	164	
	17.0199	Building Trades	20	10	50.0	2546	
	17.1900	Graphic Arts	8	3	37.5	218	
	17.1206	Combination Welding	13	4	30.7		(982)
	17.2602	Cosmetology	15	8	53.3	2203	
	17.3100	Small Engine Repair	6	1	16.7		(292)
	17.3601	Cabinetmaking	20	6	30.0	134	
Arapahoe 1 - Englewood	04.0000	Coop D.E.	14	8	57.1	19910	
	14.0300	General Clerical	109	24	22.0	9529	
	17.0302	Auto Mechanics	20	6	30.0	2705	
Arapahoe 2 - Sheridan	14.0300	General Clerical	13	10	76.9	9529	
	17.0302	Auto Mechanics	23	10	43.5	2705	
Arapahoe 5 - Cherry Creek	04.0000	Coop D.E.	125	26	20.8	19910	
	14.0200	Data Processing	30	6	20.0	412	
	14.0300	General Clerical	24	2	8.3	9529	
	14.0700	Steno & Secretarial	23	7	30.4	8362	
	16.1081	Electronic Tech.	4	0	0	513	
	17.0302	Auto Mechanics	23	5	21.7	2705	
	17.0900	Commercial Photography	7	0	0		(89)
	17.1900	Graphic Arts	29	4	13.8	218	
Arapahoe 6 - Littleton	04.0000	Coop D.E.	95	55	57.9	19910	
	14.0300	General Clerical	361	106	29.4	9529	
Arapahoe 26J - Deer Trail	14.0300	General Clerical	9	2	22.2	9529	

Table 2

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
DENVER METROPOLITAN PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Arapahoe 28J - Aurora	01.0500	Ornamental Horticulture	14	6	42.9	158	
	14.0000	Coop D.E.	13	6	46.1	19910	
	07.0603	Optometrist Assistant	0	0	0	32	
	07.0700	Health Cluster	24	4	16.7		
	09.0202	Clothing Management	9	2	22.2		
	09.0203	Food Management	17	8	47.1		
	14.0100	Accounting	122	20	16.4	2845	
	14.0200	Data Processing	36	15	41.7	412	
	14.0300	General Clerical	138	30	21.7	9529	
	16.1081	Electronic Tech.	17	2	11.8	513	
	16.1082	Communications	2	2	100.0		
	16.1084	Radio - TV	10	3	30.0		
	16.1105	Air Conditioning	3	0	0		(820)
	16.1992	Drafting	7	2	28.0	16	
	17.0200	Appliance Repair	1	0	0		(75)
	17.0301	Body and Fender	8	4	50.0		(760)
	17.0302	Auto Mechanics	27	22	81.0	2705	
	17.0600	Business Machine Maintenance	1	1	100.0	164	
	17.0700	Commercial Art	5	0	0	276	
	17.0900	Commercial Photography	5	2	40.0		(89)
	17.1002	Electricity	4	2	50.0		(143)
	17.1007	Plumbing & Pipefitting	4	3	75.0	105	
	17.1009	Glazing	15	9	60.0	93	
	17.1200	Diesel Mechanics	7	3	43.0		(899)
	17.1900	Graphic Arts	9	3	33.0	218	
	17.2302	Machine Shop	4	3	75.0		(304)
	17.2305	Sheet Metal	0	0	0	146	
	17.2306	Combination Welding	15	12	80.0		(982)
	17.2602	Cosmetology	7	3	43.0	2203	
	17.3100	Small Engine Repair	2	2	100.0		(292)
Arapahoe 32J - Byers	01.0100	Ag Production	0	0	0	87	
	14.0300	General Clerical	16	4	25.0	9529	
Arapahoe/Douglas AVS - Littleton	01.0100	Ag Production	37	9	24.0	87	
	01.0500	Ornamental Horticulture	13	6	46.0	158	
	07.0303	Nursing Assistant	22	14	64.0	5209	
	09.0201	Child Care	51	12	23.0	663	
	17.0200	Appliance Repair	15	4	27.0		(75)
	17.0301	Body and Fender	42	12	28.0		(760)
	17.1001	Carpentry	11	5	45.0	329	
	17.2302	Machine shop	12	3	25.0		(304)
	17.2306	Combination Welding	22	5	23.0		(982)
	17.2602	Cosmetology	17	11	65.0	2203	

Table 2

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
DENVER METROPOLITAN PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	17.3100	Small Engine Repair	8	2	25.0		(292)
Boulder RE1J - Longmont	01.0100	Ag Production	18	3	17.0	97	
	01.0500	Ornamental Horticulture	12	3	25.0	158	
	04.0000	Coop D.E.	22	16	73.0	19910	
	07.0700	Health Cluster	20	6	30.0		
	09.0201	Child Care	19	3	16.0	663	
	09.0203	Food Management	8	4	50.0		
	14.0100	Accounting	13	1	8.0	[illegible]	
	14.0700	Steno & Secretarial	107	44	41.0	8362	
	16.0994	Radio & TV Broadcasting	8	0	0		
	17.0302	Mechanics	34	4	12.0	2705	
	17.1099	Building Trades	0	0	0	2546	
	17.1900	Graphic Arts	16	4	25.0	218	
	17.2302	Machine Shop	14	8	57.0		(304)
	17.2306	Combination Welding	6	4	67.0		(982)
	17.2602	Cosmetology	11	2	18.0	2203	
Boulder RE2J - Boulder	04.0000	Coop D.E.	112	68	61.0	19910	
	07.0303	Nursing Assistant	20	8	40.0	5209	
	14.0100	Accounting	28	10	38.0	2845	
	14.0201	Key Punch	12	12	100.0	412	
	14.0202	Computer Operations	22	20	91.0	295	
	14.0203	Programming	14	10	71.0	93	
	14.0300	General Clerical	43	20	46.0	9529	
	14.0700	Steno & Secretarial	63	27	43.0	8362	
	16.1081	Electronic Tech.	16	13	81.0	513	
	16.1084	Radio & TV	6	4	67.0		
	16.1992	Drafting	19	7	37.0	16	
	17.0301	Body and Fender	15	6	40.0		(760)
	17.0302	Auto Mechanics	38	38	95.0	2705	
	17.1099	Building Trades	22	22	100.0	2546	
	17.1401	Industrial Tech.	8	4	50.0	513	
	17.1900	Graphic Arts	14	11	78.0	218	
	17.2302	Machine Shop	21	21	100.0		(304)
	17.2306	Combination Welding	14	7	50.0		(982)
	17.2602	Cosmetology	19	6	31.5	2203	
Clear Creek Rel - Idaho Springs	04.0000	Coop D.E.	7	2	28.5	19910	
	14.0300	General Clerical	6	1	17.0	9529	
Denver 1 - Denver	04.0000	Coop D.E.	244	134	55.0	19910	
	04.0200	Apparel & Accessories	47	15	32.0		(1231)

Table 2

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
DENVER METROPOLITAN PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	07.0101	Dental Assistant	9	1	11.0	386	
	07.0300	Nursing	60	12	20.0	8629	
	07.0404	Rehabilitation Aide	35	6	17.0		(749)
	07.0700	Health Occupations	61	4	6.0		
	09.0201	Child Care	31	4	13.0	663	
	09.0202	Clothing Management	15	1	7.0		
	09.0203	Food Management	64	30	47.0		
	09.0205	Institutional/Home Management	1	0	0	2887	
	09.2992	H.E.R.O.	277	134	48.0		
	09.2993	Multi-Occ.	56	5	9.0		
	14.0100	Accounting	103	22	21.0	2845	
	14.0200	Data Entry	7	2	29.0	412	
	14.0300	General Clerical	733	255	35.0	9529	
	14.0700	Steno & Secretarial	63	33	53.0	8362	
	16.1012	Aircraft Maintenance	0	0	0		(752)
	16.1081	Electronic Tech.	42	9	21.0	513	
	16.1084	Radio - TV	1	0	0		
	16.1101	Environmental Tech.	0	0	0		
	16.1992	Drafting	55	10	18.0	16	
	17.0301	Body and Fender	14	11	76.0		(760)
	17.0302	Auto Mechanics	135	44	33.0	2705	
	17.1001	Carpentry	7	3	43.0	329	
	17.1002	Electrician	21	6	29.0		(143)
	17.1004	Masonry	4	0	0		(79)
	17.1007	Plumbing	5	0	0	105	
	17.1099	Building Trades	18	6	33.0	2546	
	17.1900	Graphic Arts	17	7	41.0	218	
	17.2102	Watchmaking & Repair	0	0	0	146	
	17.2302	Machine Shop	9	5	56.0		(304)
	17.2304	Metal Trades	36	10	28.0	146	
	17.2306	Combination Welding	62	12	19.0		(982)
	17.2601	Barbering	0	0	0	533	
	17.2602	Cosmetology	8	0	0	2203	
	17.3100	Small Engine Repair	28	2	7.0		(292)
Douglas RE13 - Castle Rock	14.0300	General Clerical	49	20	41.0	9529	
	17.0399	Automotive Services	13	3	23.0		
	17.1099	Building Trades	17	5	29.0	2546	
Jefferson R1 - Lakewood	01.0100	Ag Production	14	3	21.0	87	
	01.0500	Ornamental Horticulture	17	11	65.0	158	

Table 2

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
DENVER METROPOLITAN PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	04.0000	Coop D.E.	351	193	55.0	19910	
	07.7000	Health Occupations	18	14	78.0		
	09.0201	Child Care	24	16	67.0	663	
	09.0202	Clothing Management	14	7	50.0		
	09.0203	Food Management	56	32	57.0		
	09.2992	H.E.R.O.	242	160	66.0		
	14.0100	Accounting	174	60	34.0	2845	
	14.0200	Data Entry	4	3	75.0	412	
	14.0300	General Clerical	751	285	38.0	9529	
	14.0700	Steno & Secretarial	153	74	48.0	8362	
	16.1084	Radio - TV	1	1	100.0		
	17.0200	Appliance Repair	6	2	33.0		(75)
	17.0301	Body and Fender	19	8	42.0		(760)
	17.0302	Auto Mechanics	61	24	39.0	2705	
	17.0700	Commercial Art	7	4	57.0	276	
	17.1001	Carpentry	16	13	81.0	329	
	17.1004	Masonry	14	8	57.0		(79)
	17.1007	Plumbing	0	0	0	105	
	17.1099	Building Trades	24	10	42.0	2546	
	17.1900	Graphic Arts	12	10	83.0	218	
	17.2302	Machine Shop	14	13	93.0		(304)
	17.2305	Sheet Metal	7	4	57.0	146	
	17.2306	Combination Welding	29	22	76.0		(982)
	17.2602	Cosmetology	19	11	58.0	2203	
	17.3100	Small Engine Repair	14	8	57.0		(292)
	17.3500	Upholstering	7	5	71.0		(62)

Table 3

PROGRAM COMPLETER DISCREPANCY MATRIX - TOTALS
WESTERN SLOPE PLANNING REGION

	Program	# of Programs	Total Complete Program	Total Placed	% Rate	Need or Surplus
01.0100	Ag Production	14	87	28	32.2	(71)
04.0000	Coop D.E.	6	128	63	49.2	6473
07.0700	Health Occ Cluster	1	6	0	0	----
07.0303	Nurse Assistant	3	28	7	25.0	969
09.0203	Food Management	1	4	0	0	----
09.2992	H.E.R.O.	3	35	14	40.0	----
14.0100	Accounting	3	42	4	9.5	3282
14.0300	General Clerical	24	462	75	16.2	1469
14.0700	Steno & Secretarial	12	267	59	22.1	1453
14.0200	Data Processing	1	3	0	0	110
15.1081	Electronic Tech	2	14	8	57.1	----
16.1084	Radio and TV	2	9	4	44.4	----
16.1992	Drafting	3	85	5	5.9	42
17.2302	Machine Shop	4	18	6	33.3	----
17.0302	Auto Mechanic	11	167	43	25.7	118
17.1099	Building Trades	9	87	24	27.6	1017
17.2300	Combination Welding	9	109	20	18.3	(76)
17.1012	Mining Occupations	1	1	0	0	----
17.3100	Small Engine Repair	2	17	7	41.2	176
17.3001	Cabinet Making	2	13	6	46.2	57
17.1200	Deisel Mechanics	1	27	4	14.8	(171)
17.1001	Carpentry	2	13	6	46.2	2669
17.1900	Graphic Arts	1	2	0	0	102
17.0000	Coop T & I	2	74	35	47.3	----
17.0301	Body and Fender	1	0	0	0	124

Table 4

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
WESTERN SLOPE PLANNING REGION

SCHOOL OR SCHOOL DISTRICT		PROGRAM	TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Archuleta 50J - Pagosa Springs	14.0300	General Clerical	31	0	0	1469	
	17.0302	Auto Mechanics	8	2	25.0	118	
	17.2306	Combination Welding	18	3	16.7		(76)
Chaffee R32 - Salida	14.0300	General Clerical	38	24	63.2	1469	
	17.0302	Auto Mechanics	8	5	62.5	118	
	17.2306	Combination Welding	4	3	75.0		(76)
Custer C1 - Westcliff	14.0300	General Clerical	3	0	0	1469	
Delta 50J - Delta	01.0100	Ag Production	12	1	8.3		(71)
	04.0000	Coop D.E.	10	0	0	6473	
	14.0300	General Clerical	55	5	9.1	1469	
	16.1992	Drafting	65	0	0	42	
Delta-Montrose AVTS	07.0303	Nurse Assistant	11	1	9.1	969	
	17.1099	Building Trades	20	2	10.0	1017	
	17.1200	Diesel Mechanic	27	4	14.8		(171)
	17.2306	Combination Welding	38	0	0		(76)
Dolores RE1 - Dove Creek	01.0100	Ag Production	6	4	66.7		(71)
	14.0700	Steno & Secretarial	16	2	12.5	1453	
Eagle RE50J - Eagle	01.0100	Ag Production	1	0	0		(71)
	04.0000	Coop D.E.	25	18	72.0	6473	
	14.0300	General Clerical	7	1	14.3	1469	
	14.0700	Steno & Secretarial	9	3	33.3	1453	
Fremont RE1 - Canon City	07.0303	Nurse Assistant	9	6	66.7	969	
	09.0203	Food Management	4	0	0		
	14.0100	Accounting	3	1	33.3	3282	
	14.0300	General Clerical	7	0	0	1469	
	14.0700	Steno & Secretarial	16	6	37.5	1453	
	17.0000	Coop T & I	45	27	60.0		
	17.0302	Auto Mechanics	12	3	25.0	118	
	17.1099	Building Trades	5	5	100.0	1017	
	17.1900	Graphic Arts	2	0	0	102	
	17.2302	Machine Shop	2	1	50.0		
	17.2306	Combination Welding	14	8	57.1		(76)
Fremont RE2J - Florence	14.0300	General Clerical	23	6	26.1	1469	
	17.0302	Auto Mechanics	16	1	6.3	118	
	17.2302	Machine Shop	3	2	66.7	0	
	17.2306	Combination Welding	9	3	33.3		(76)
Garfield RE1J - Glenwood Springs	07.0700	Health Occupations Cluster	6	0	0		
	14.0300	General Clerical	60	15	25.0	1469	
	16.1081	Electronic Tech.	14	4	28.6		

Table 4

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
WESTERN SLOPE PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	17.0302	Auto Mechanics	20	6	30.0	118	
	17.1099	Building Trades	6	2	33.3	1017	
	17.2302	Machine Shop	4	1	25.0	0	
	17.2306	Combination Welding	11	2	18.2		(76)
Garfield RE2 - Rifle	01.0100	Ag Production	5	2	40.0		(71)
	04.0000	Coop D.E.	13	7	53.9	6473	
	14.0300	General Clerical	26	12	46.1	1469	
Garfield 16 - Grand Valley	14.0300	General Clerical	7	2	28.6	1469	
Grand 1J - Kremmling	01.0100	Ag Production	3	1	33.3		(71)
	14.0700	Steno & Secretarial	7	0	0	1453	
Grand 2 - Granby	14.0300	General Clerical	1	0	0	1469	
	17.3100	Small Engine Repair	10	5	50.0	176	
Gunnison RE1J - Gunnison	01.0100	Ag Production	3	2	66.6		(71)
	14.0300	General Clerical	30	6	20.0	1469	
Huerfano RE2 - Laveta	01.0100	Ag Production	6	0	0		(71)
	14.0300	General Clerical	0	0	0	1469	
Jackson R1 - Waldon	01.0100	Ag Production	1	1	100.0		(71)
	14.0300	General Clerical	4	0	0	1469	
Lake R1 - Leadville	14.0100	Accounting	6	1	16.7	3282	
	14.0300	General Clerical	14	2	14.3	1469	
	14.0700	Steno & Secretarial	1	0	0	1453	
	16.1084	Radio - TV Consumer	3	2	66.7	255	
	17.0302	Auto Mechanics	6	2	33.3	118	
	17.1001	Carpentry	0	0	0	2669	
Lake - Colorado Mountain College - Leadville	07.0700	Health Occupations Cluster	0	0	0		
	17.2306	Combination Welding	0	0	0		(76)
La Plata 9R - Durango	01.0100	Ag Production	0	0	0		(71)
	09.2992	H.E.R.O.	13	7	53.8		
	14.0300	General Clerical	64	10	15.6	1469	
	16.1084	Radio - TV	6	1	16.7	255	
	16.1992	Drafting	15	2	13.3	42	
	17.0302	Auto Mechanics	17	5	29.4	118	
	17.1099	Building Trades	12	5	41.7	1017	

Table 4

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
WESTERN SLOPE PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	17. 3601	Cabinetmaking	10	6	60.0	57	
La Plata 10JTR - Bayfield	14.0700	Steno & Secretarial	11	3	27.3	1453	
	17.1099	Building Trades	7	3	42.9	1017	
La Plata 11JT - Ignacio	17.1001	Carpentry	13	6	46.1	2669	
Mesa 51 - Grand Junction	01.0100	Ag Production	11	8	72.7		(71)
	09.2992	H.E.R.O.	26	10	38.5		
	14.0300	General Clerical	102	9	8.8	1469	
	14.0700	Steno & Secretarial	119	23	19.3	1453	
	16.1992	Drafting	5	3	60.0	42	
Mesa College - Grand Junction	04.0000	Coop D.E.	35	21	60.0	6473	
	14.0200	Data Processing	3	0	0	110	
	16.1081	Electronic Tech.	10	4	40.0		
	17.0000	Coop T. I. (ICE)	29	8	27.6		
	17.0301	Body and Fender	0	0	0	124	
	17.0302	Auto Mechanics	13	5	38.5	118	
	17.2302	Machine Shop	9	2	22.2	0	
	17.2306	Combination Welding	0	0	0		(76)
Moffat RE1 - Craig	01.0100	Ag Production	6	0	0		(71)
	04.0000	Coop D.E.	29	12	41.4	6473	
	14.0300	General Clerical	17	3	17.6	1469	
	17.1099	Building Trades	11	7	63.6	1017	
Montrose RE1J - Montrose	01.0100	Ag Production	21	5	23.8		(71)
	04.000	Coop D.E.	16	5	31.2	6473	
	14.0100	Accounting	33	2	6.0	3282	
	14.0300	General Clerical	20	0	0	1469	
	14.0700	Steno & Secretarial	30	4	13.3	1453	
	17.0302	Auto Mechanics	31	7	22.6	118	
Ouray R1 - Ouray	14.0300	General Clerical	3	0	0	1469	
Pitkin 1 - Aspen	07.0303	Nursing Assistant	8	0	0	969	
	14.0700	Steno & Secretarial	30	8	26.7	1453	
	17.0302	Auto Mechanics	5	1	20.0	118	
	17.3601	Cabinetmaking	3	0	0	57	
Rio Blanco RE1 - Meeker	01.0100	Ag Production	5	2	40.0		(71)
	14.0300	General Clerical	2	1	50.0	1469	

Table 4

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
WESTERN SLOPE PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	14.0700	Steno & Secretarial	10	3	30.0	1453	
	17.1099	Building Trades	18	0	0	1017	
Rio Blanco RE4 - Rangely	14.0300	General Clerical	4	3	75.0	1469	
	17.0302	Auto Mechanics	14	2	14.3	118	
	17.1099	Building Trades	5	0	0	1017	
Routt RE1 - Hayden	17.0302	Auto Mechanics	17	4	23.5	118	
Routt RE2 - Steamboat Springs	09.2992	H.E.R.O.	9	4	44.4		
	14.0700	Steno & Secretarial	9	5	55.6		
	17.1099	Building Trades	3	0	0		
	17.2306	Combination Welding	15	1	6.7		(76)
Routt RE3J - Oak Creek	01.0100	Ag Production	7	2	28.6		(71)
	14.0300	General Clerical	5	0	0	1469	
San Juan 1 - Silverton	17.1012	Mining Occupations	1	0	0		
San Miguel R2J - Norwood	14.0700	Steno & Secretarial	9	2	22.2	1453	
Summit RE1 -Frisco	14.0300	General Clerical	8	2	25.0	1469	
	17.3100	Small Engine Repair	7	2	28.6	176	

Table 5

PROGRAM COMPLETER DISCREPANCY MATRIX - TOTALS
SOUTHEAST PLANNING REGION

	Program	# of Programs	Total Complete Programs	Total Placed	% Rate	Need or Surplus
01.0100	Ag Production	22	101	32	31.70	(611)
01.0500	Ornamental Horticulture	2	2	1	50.00	(117)
01.0300	Agriculture Mechanics	1	4	0	0	(84)
04.0000	Coop. D.E.	9	185	81	43.80	4904
04.0200	Fashion Merchandising	1	14	1	7.10	(210)
07.0303	Nurse Assistant	3	48	5	10.40	1317
07.0101	Dental Assistant	2	35	10	28.60	4
07.0700	Health Occu. Cluster	1	23	8	34.80	-----
09.0201	Child Care	3	38	4	10.50	144
09.0202	Clothing Management	1	14	2	14.30	-----
09.0203	Food Management	2	33	14	42.40	-----
09.2992	H.E.R.O.	3	49	21	43.00	-----
14.0100	Accounting	4	83	36	43.40	1180
14.0200	Data Processing	3	64	14	21.90	(18)
14.0300	General Clerical	31	513	275	53.60	(806)
14.0700	Steno & Secretarial	13	271	134	49.40	689
16.1081	Electronic Tech	5	37	12	32.40	(488)
16.1084	Radio - T.V.	3	30	6	20.00	-----
16.1061	Civil Technology	1	6	3	50.00	-----
16.1082	Communications	1	18	2	11.10	-----
16.1101	Environmental tech	1	0	0	0	-----
16.1992	Drafting	5	29	6	20.70	(53)
16.0051	Police Science	1	28	4	14.30	-----
16.6994	Radio & T.V. Broadcasting	1	11	6	54.50	-----
17.0200	Appliance Repair	2	17	7	41.20	(52)
17.0301	Body and Fender	2	37	27	73.00	(138)
17.0302	Auto Mechanics	13	205	85	41.50	(1060)
17.0000	Coop T & I	1	43	30	69.80	-----
17.1001	Carpentry	1	13	7	53.80	(200)
17.1004	Masonry	1	14	6	42.90	(69)
17.1101	Industrial Maintenance Occ	1	14	5	35.70	-----
17.1100	Custodial Services	1	4	2	50.00	2065
17.1099	Building Trades	9	98	52	53.10	(43)
17.0700	Commercial Art Occupations	1	19	3	15.80	67
17.2302	Machine Shop	5	32	16	50.00	(172)
17.2301	Foundry	1	16	7	43.70	(41)
17.2306	Combination Welding	8	113	53	46.90	(189)
17.2304	Metal Trades	2	7	6	85.70	(40)
17.2602	Cosmetology	3	44	21	47.70	248
17.2303	Machine Tool Operator	1	15	8	53.30	(681)
17.3100	Small Engine Repair	4	33	7	21.20	(103)
17.1900	Graphic Arts	4	49	13	26.50	(348)

Table 6

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
SOUTHEAST PLANNING REGION

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
San Luis A.V.S. - Alamosa	01.0100	Ag Production	5	4	80.0		(611)
	09.2992	H.E.R.O.	15	11	73.0		
	14.0100	Accounting	2	0	0	1183	
	14.0300	General Clerical	4	1	25.0		(806)
	14.0700	Steno & Secretarial	8	3	37.5	689	
	17.0302	Auto Mechanics	10	1	10.0		(1060)
	17.2302	Machine Shop	11	2	18.1		(172)
Alamosa RE 22J - Musca	14.0300	General Clerical	4	3	75.0		(806)
Baca RE1 - Walsh	01.0100	Ag Production	5	3	60.0		(611)
Baca RE3 - Pritchett	01.0100	Ag Production	6	0	0		(611)
Baca Rey - Springfield	14.0300	General Clerical	51	0	0		(806)
	14.0700	Steno & Secretarial	3	0	0	689	
Baca RE6 - Campo	01.0100	Ag Production	2	0	0		(611)
Bent RE1 - Las Animas	04.0000	Coop D.E.	3	1	33.3	4904	
	14.0300	General Clerical	12	9	75.0		(806)
Bent RE2 - McClave	01.0100	Ag Production	1	1	100.0		(611)
	14.0300	General Clerical	8	4	50.0		(806)
Conejos RE1J - La Jara	01.0100	Ag Production	1	1	100.0		(611)
	14.0300	General Clerical	44	21	47.7		(806)
	17.0302	Auto Mechanics	6	5	83.3		(1060)
	17.1099	Construction Trades	8	6	75.0		(43)
	17.2306	Combination Welding	10	6	60.0		(681)
Conejos 6J - Sanford	14.0300	General Clerical	10	3	30.0		(806)
Conejos RE10 - Antonito	17.1099	Construction Trades	0	0	0		(43)
	17.2306	Combination Welding	8	3	37.5		(681)
	17.3100	Small Engine Repair	10	1	10.0	103	
Costilla R1 - San Luis	07.0303	Nurse Assistant	4	0	0	1317	
	14.0700	Steno & Secretarial	8	2	25.0	689	
	17.0302	Auto Mechanics	6	0	0		(1060)
	17.1099	Construction Trades	4	3	75.0		(43)
	17.2306	Combination Welding	6	2	33.3		(681)
Costilla R30 - Blanca	01.0100	Ag Production	0	0	0		(611)
	14.0300	General Clerical	4	1	25.0		(806)
Crowley RE1J - Ordway	01.0100	Ag Production	5	2	40.0		(611)
	14.0300	General Clerical	10	1	10.0		(806)
El Paso RJ1 - Calhan	01.0100	Ag Production	6	4	66.6		(611)
	14.0300	General Clerical	10	2	20.0		(806)
El Paso 2 - Harrison	14.0700	Steno & Secretarial	27	16	59.2	689	
	17.0302	Auto Mechanics	17	12	70.6		(1060)
	17.1001	Carpentry	13	7	53.8		(200)

Table 6

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
SOUTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	17.2000	Metal Trades	1	1	100.0		(40)
El Paso 3 - Widefield	04.0000	Coop D.E.	41	18	43.9	4904	
	14.0200	Data Processing	25	8	32.0		(18)
	14.0300	General Clerical	27	12	44.4		(806)
	14.0700	Steno & Secretarial	21	18	85.7	689	
	16.1081	Electronic Tech.	5	1	20.0		(488)
El Paso 8 - Fountain	04.0000	Coop D.E.	26	14	53.8	4904	
El Paso 11 - Colorado Springs	09.2992	H.E.R.O.	17	7	41.1		
	14.0100	Accounting	34	12	35.2	1180	
	14.0300	General Clerical	58	26	44.8		(806)
	14.0700	Steno & Secretarial	62	30	48.4	689	
	16.1081	Electronic Tech.	14	7	50.0		(488)
	16.0992	Drafting	4	1	25.0		(53)
	17.0000	Coop T & I	43	30	69.8		
	17.0200	Appliance Repair	8	2	25.0		(52)
	17.0302	Auto Mechanics	63	26	41.3		(1060)
	17.1099	Construction Trades	30	16	53.3		(43)
	17.1900	Printing Press Occupations	24	7	29.7		(346)
	17.2302	Machine Shop	12	5	41.7		(172)
	17.2304	Metal Trades	6	5	83.3		(40)
El Paso 20 - USAF Academy	17.0000	Coop T & I	33	18	54.5		
	07.0101	Dental Assistant	18	3	16.7	4	
Pikes Peak Community College - Colorado Springs	07.0303	Nursing Assistant	26	0	0	1317	
	07.0201	Child Care	18	1	5.5	144	
	09.0203	Food Management	8	4	50.0		
	14.0200	Data Processing	12	2	16.7		(18)
	14.0300	General Clerical	34	6	17.6		(806)
	14.0700	Steno & Secretarial	44	21	47.7	689	
	16.1081	Electronic Tech.	0	0	0		(488)
	16.1084	Radio - TV Tech.	4	1	25.0		
	16.1101	Environmental Tech.	0	0	0		
	16.1992	Drafting	3	1	33.3		
	16.6051	Police Science	28	4	14.3		
	16.6994	Radio & TV Broadcasting	11	6	54.5		
	17.0301	Body and Fender	22	16	72.7		(138)
	17.0302	Auto Mechanics	36	15	41.7		(1060)
	17.0700	Commercial Art Occupations	19	3	15.8	67	
	17.1099	Building Trades	11	7	63.6		(43)
	17.1900	Printing Press Occupations	3	2	66.7		(346)

Table 6

PROGRAM COMPLETER DISCREPANCY MATRIX – FOR SCHOOL DISTRICT
SOUTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	17.2302	Machine Shop	8	3	37.5		(172)
	17.2306	Combination Welding	44	27	61.4		(681)
	17.2602	Cosmetology	26	14	53.9	248	
	17.3100	Small Engine Repair	6	2	33.3	103	
Huerfano RE1 – Walsenburg	14.0300	General Clerical	10	3	30.0		(806)
	17.0302	Auto Mechanics	5	2	40.0		(1060)
	17.2306	Combination Welding	8	3	37.5		(681)
Huerfano RE2 – Laveta	01.0100	Ag Production	6	0	0		(611)
	14.0300	General Clerical	0	0	0		(806)
Kiowa RE1 – Eads	14.0300	General Clerical	6	0	0		(806)
Las Animas 1 – Trinidad	01.0500	Ornamental Horticulture	2	1	50.0		(117)
	09.0201	Child Care	11	2	18.2	144	
	14.0700	Steno & Secretarial	28	2	7.1	689	
	16.1081	Electrical Tech.	7	1	14.3		(488)
	17.0302	Auto Mechanics	10	4	40.0		(1060)
	17.1099	Building Trades	5	4	80.0		(43)
	17.1900	Graphic Arts	7	2	28.5		(346)
	17.2302	Machine Shop	8	5	62.5		(172)
Las Animas 3 – Hoehne	01.0100	Ag Production	1	1	100.0		(611)
Las Animas 6 – Aguilar	14.0300	General Clerical	9	0	0		(806)
	17.0302	Auto Mechanics	7	3	42.8		(1060)
Las Animas 88 – Kim	01.0100	Ag Production	2	0	0		(611)
	14.0300	General Clerical	4	0	0		(806)
Otero R1 – La Junta	04.0000	Coop D.E.	12	3	25.0	4904	
	14.0300	General Clerical	22	0	0		(806)
	14.0700	Steno & Secretarial	9	1	11.0	689	
Otero R2 – Rocky Ford	01.0100	Ag Production	5	3	60.0		(611)
	04.0000	Coop D.E.	0	0	0	4904	
	09.2992	H.E.R.O.	17	3	17.6		
	14.0300	General Clerical	25	10	40.0		(806)
	14.0700	Steno & Secretarial	10	5	50.0	689	
Otero R4J – Fowler	01.0100	Ag Production	9	4	44.4		(611)
	14.0300	General Clerical	14	1	7.1		(806)
Otero 33 – Swink	14.0300	General Clerical	8	1	12.5		(806)

Table 6

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
SOUTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Otero Junior College - La Junta	01.0100	Ag Production	4	1	25.0		(611)
	07.0303	Nursing Assistant	18	5	27.8	1317	
	09.0201	Child Care	9	1	11.1	144	
	14.0200	Data Processing	27	4	14.8		(18)
	16.1061	Civil Technology	6	3	50.0	42	
	16.1084	Radio - TV Electronics	9	1	11.1		
	16.1992	Drafting	8	1	12.5		(53)
	17.0302	Auto Mechanics	29	4	13.8		(1060)
	17.1004	Masonry	14	6	42.8		(69)
	17.1100	Custodial Services	4	2	50.0	2065	
	17.2302	Machine Shop	4	3	75.0		(172)
	17.2306	Combination Welding	9	4	44.4		(681)
Park 1 - Bailey	14.0300	General Clerical	0	0	0		(806)
Prowers RE1 - Granada	01.0100	Ag Production	8	1	12.5		(611)
	04.0000	Coop D.E.	9	0	0	4904	
Prowers RE2 - Lamar	01.0100	Ag Production	1	0	0		(611)
	04.0000	Coop D.E.	11	4	36.4	4904	
	14.0300	General Clerical	26	14	53.8		(806)
Prowers RE3 - Holly	01.0100	Ag Production	2	0	0		(611)
Prowers RE13JT - Wiley	01.0100	Ag Production	9	0	0		(611)
Lamar Community College	17.0302	Auto Mechanics	7	3	42.8		(1060)
	17.1099	Building Trades	16	5	31.3		(43)
	17.2306	Combination Welding	28	8	28.6		(681)
	17.2602	Cosmetology	4	3	75.0	248	
Pueblo 60 - Pueblo	04.0000	Coop D.E.	53	29	54.7	4904	
	07.0101	Dental Assistant	17	7	41.1	4	
	07.0700	Health Occupations Cluster	23	8	34.8		
	14.0100	Accounting	42	22	52.4	1180	
	14.0300	General Clerical	37	13	35.1		(806)
Pueblo 60 - Pueblo	14.0700	Steno & Secretarial	38	24	63.2	689	
	16.1081	Electronic Tech.	11	3	27.3		(488)
	17.1900	Graphic Arts	15	2	13.3		(346)
Pueblo 70 - Pueblo Rural	01.0100	Ag Production	3	2	66.7		(611)
	04.0000	Coop D.E.	30	12	40.0	4904	
	14.0100	Accounting	5	3	60.0	1180	
	14.0300	General Clerical	21	4	19.0		(806)
University of Southern Colorado - AVS	01.0500	Ornamental Horticulture	11	2	18.1		(117)

Table 6

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
SOUTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
	04.0200	Fashion Merchandising	14	1	7.1		(210)
	09.0202	Clothing Management	14	2	14.3		
	09.0203	Food Management	25	10	40.0		
	14.0700	Steno & Secretarial	12	11	91.7	689	
	16.1082	Communications	18	2	11.1		
	16.1084	Radio - TV Electronics	17	4	23.5		
	16.1992	Drafting	9	2	22.2		
	17.0200	Appliance Repair	9	5	55.5		(52)
	17.0301	Body and Fender	15	11	73.3		(138)
	17.0302	Auto Mechanics	30	12	40.0		(1060)
	17.1099	Building Trades	17	9	52.9		(43)
	17.1101	Industrial Maintenance Occupations	14	5	35.7	2065	
	17.2301	Foundry	16	7	43.7		(41)
	17.2302	Machine Tool Operation	15	8	53.3	189	
	17.2305	Combination Welding	24	20	83.3		(681)
	17.2602	Cosmetology	14	5	35.7	248	
	17.3100	Small Engine Repair	14	5	35.7	103	
Rio Grande C7 - Del Norte	14.0300	General Clerical	8	1	12.5		(806)
Rio Grande C8 - Monte Vista	01.0100	Ag Production	5	4	80.0		(611)
San Luis A.V.S. - Monte Vista	01.0300	Agriculture Mechanics	4	0	0		(84)
	14.0700	Steno & Secretarial	1	1	100.0	689	
	16.1992	Drafting	5	1	20.0		
	17.0302	Auto Mechanics	8	2	25.0		(1060)
	17.1099	Building Trades	7	2	28.6		(43)
	17.3100	Small Engine Repair	3	0	0	103	
Rio Grande RE33J - Sargent	14.0300	General Clerical	8	0	0		(806)
Routt RE3J - Oak Creek	01.0100	Ag Production	7	2	28.6		(611)
	14.0300	General Clerical	5	0	0		(806)
Teller RE1 - Cripple Creek	14.0300	General Clerical	9	2	22.2		(806)
Teller RE2 - Woodland Park	14.0300	General Clerical	25	4	16.0		(806)

Table 7

PROGRAM COMPLETER DISCREPANCY MATRIX - TOTALS
NORTHEAST PLANNING REGION

	Program	# of Programs	Total Complete Program	Total Placed	% Rate	Need or Surplus
01.0100	Ag Production	26	210	88	41.9	215
01.0500	Ornamental Horticulture	2	8	0	0	(74)
04.0000	Coop D.E.	8	250	132	52.8	4152
07.0303	Nurse Assistant	4	52	9	17.3	922
07.0700	Health Occupations	2	25	11	44.0	-----
09.0201	Child Care	1	12	3	25.0	280
09.0203	Food Management	2	44	10	22.7	-----
09.2992	H.E.R.O.	2	77	16	20.8	-----
14.0100	Accounting	1	52	6	11.5	1618
14.0200	Data Processing	2	22	3	13.6	(174)
14.0300	General Clerical	29	741	152	20.5	561
14.0700	Steno & Secretarial	7	288	91	31.6	950
10.1081	Electronic Tech	5	45	10	36.0	(158)
10.1091	Electro Mechanical Technician	1	8	7	87.5	-----
10.1101	Heating A/C & Plumbing	1	8	2	25.0	(4)
10.0992	Drafting	2	24	1	4.1	86
10.0011	Pilot Training	1	5	1	20.0	(62)
17.0302	Auto Mechanics	8	160	49	30.6	(178)
17.1001	Carpentry	2	31	16	51.6	976
17.2306	Combination Welding	5	83	22	26.5	(143)
17.2302	Machine Shop	1	14	7	50.0	65
17.0301	Body and Fender	3	63	12	19.0	(154)
17.3100	Small Engine Repair	1	16	2	12.5	152
17.1004	Masonry	1	7	4	57.1	30
17.2002	Cosmetology	1	6	4	66.7	521
17.1099	Building Trades	6	66	29	43.9	576
17.1900	Graphic Arts	1	8	2	25.0	181
17.0000	Coop T & I	1	18	8	44.4	-----

Table 8

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
NORTHEAST PLANNING REGION

SCHOOL OR SCHOOL DISTRICT	PROGRAM	TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Cheyenne R2 - Cheyenne	16.1081 Electronic Tech	2	0	0		(158)
Elizabeth C1	14.0300 General Clerical	10	5	50.0	561	
	17.2306 Welding & Cutting	20	5	25.0		(143)
Elbert 100J - Simla	14.0300 General Clerical	4	2	50.0	561	
	17.0302 Auto Mechanics	7	0	0		(179)
Elbert District 200	14.0300 General Clerical	8	1	12.5	561	
Kit Carson - Flagler	01.0100 Ag Production	1	1	100.0	215	
	14.0300 General Clerical	4	1	25.0	561	
Kit Carson - Seibert	01.0100 Ag Production	7	3	43.0	215	
Kit Carson - Burlington	07.0303 Nurse Assistant	3	2	67.0	922	
Larimer R1 - Fort Collins	04.0000 Coop D.E.	80	31	39.0	4152	
	09.2992 H.E.R.O.	55	13	24.0		
	14.0300 General Clerical	248	40	16.0	561	
	14.0700 Steno & Secretarial	77	6	8.0	950	
	17.0000 Coop T & I	18	8	44.0		
Larimer County AVS	01.0100 Ag Production	22	10	45.0	215	
	01.0500 Ornamental Horticulture	8	0	0		(74)
	07.0700 Health Occupations	11	9	82.0		
	09.0201 Child Care	12	3	25.0	280	
	14.0200 Data Processing	10	3	30.0		(174)
	16.1081 Electronic Tech.	16	8	50.0		(158)
	16.1091 Electro Mech. Tech.	8	7	87.5		
	16.1101 Heating - A/C - Plumbing	8	2	25.0		(4)
	16.1992 Drafting	18	1	5.6	86	
	17.0302 Auto Mechanics	38	24	63.0		(178)
	17.1001 Carpentry	27	12	45.0	976	
	17.1004 Masonry	7	4	57.0	30	
	17.2302 Machine Shop	14	7	50.0	65	
	17.2306 Combination Welding	19	11	58.0		(143)

Table 8

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
NORTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Larimer R2J - Loveland	04.0000	Coop D.E.	40	16	40.0	4152	
	09.2992	H.E.R.O.	22	3	14.0		
	14.0300	General Clerical	164	32	20.0	561	
	14.0700	Steno & Secretarial	19	4	21.0	950	
Larimer R1 - Estes Park	14.0300	General Clerical	20	4	20.0	561	
Lincoln RE31 - Arriba	14.0300	General Clerical	5	1	20.0	561	
Logan RE1 - Sterling	01.0100	Ag Production	14	4	29.0	215	
	14.0700	Steno & Secretarial	72	35	49.0	950	
Logan RE3 - Fleming	14.0300	General Clerical	14	0	0	561	
Logan RE45 - Merino	01.0100	Ag Production	13	2	15.0	215	
Logan RE5 - Peetz	01.0100	Ag Production	5	3	60.0	215	
N.J.C. - Sterling	07.0303	Nursing Assistant	12	2	17.0	922	
	16.1081	Electrical Tech.	2	0	0		(158)
	17.0301	Body and Fender	9	3	33.0		(154)
	17.0302	Auto Mechanics	27	0	0		(178)
	17.1001	Carpentry	4	4	100.0	976	
Morgan RE2J - Brush	01.0100	Ag Production	2	1	50.0	215	
	04.0000	Coop D.E.	9	4	44.0	4152	
	14.0300	General Clerical	40	12	30.0	561	
	17.0302	Auto Mechanics	12	1	8.0		(178)
Morgan RE3 - Fort Morgan	01.0100	Ag Production	9	6	67.0	215	
	04.0000	Coop D.E.	16	0	0	4152	
	14.0700	Steno & Secretarial	10	4	40.0	950	
Morgan RE2J - Weldona	01.0100	Ag Production	2	0	0	215	
	14.0300	General Clerical	2	0	0	561	

Table 8

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
NORTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Morgan Community College - Fort Morgan	07.0303	Nursing assistant	22	4	18.0	922	
	09.0203	Food Management	18	2	11.0		
	16.1081	Electronic Tech.	4	0	0		(158)
	17.0301	Body and Fender	19	3	16.0		(154)
	17.0302	Auto Mechanics	12	4	33.0		(178)
	17.1099	Construction Trades	15	8	53.0	576	
Phillips RE2J - Haxtun	01.0100	Ag Production	6	4	67.0	215	
	14.0300	General Clerical	17	1	5.9	561	
Phillips RE1J - Holyoke	01.0100	Ag Production	3	2	67.0	215	
	14.0300	General Clerical	23	4	17.0	561	
	17.1099	Construction Trades	9	3	33.0	576	
Sedgwick RE1 - Julesburg	14.0700	Steno & Secretarial	17	2	12.0	950	
	17.1099	Construction Trades	3	0	0	576	
	17.2306	Combination Welding	4	1	25.0		(143)
Sedgwick RE3 - Ovid	14.0300	General Clerical	0	0	0	561	
	17.0302	Auto Mechanics	13	4	31.0		(178)
	17.1099	Construction Trades	8	5	62.5	576	
Washington R1 - Akron	01.0100	Ag Production	8	5	62.5	215	
	14.0300	General Clerical	5	1	20.0	561	
	17.1099	Construction Trades	4	2	50.0	576	
Washington R2 - Anton	01.0100	Ag Production	22	4	18.0	215	
	14.0300	General Clerical	18	0	0	561	
Washington R3 - Otis	01.0100	Ag Production	1	0	0	215	
	14.0300	General Clerical	5	2	40.0	561	
Washington 101 - Lone Star	01.0100	Ag Production	1	1	100.0	215	
Washington 104 - Woodrow	14.0300	General Clerical	10	2	20.0	561	

Table 8

PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
NORTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Weld RE1 - Gilcrest	14.0300	General Clerical	26	14	54.0	561	
Weld RE2 - Eaton	01.0100	Ag Production	10	2	20.0	215	
	14.0300	General Clerical	13	2	15.0	561	
Weld RE3J - Keensburg	01.0100	Ag Production	3	1	33.0	215	
	14.0300	General Clerical	16	3	19.0	561	
Weld RE4 - Windsor	01.0100	Ag Production	3	1	33.0	215	
	04.0000	Coop D.E.	9	3	33.0	215	
	14.0300	General Clerical	12	6	50.0	561	
Weld 6 - Greeley	01.0500	Ornamental Horticulture	2	0	0		(74)
	04.0000	Coop D.E.	68	35	51.0	4152	
	14.0100	Accounting	52	6	12.0	1618	
	14.0700	Steno & Secretarial	87	38	44.0	950	
	17.2602	Cosmetology	6	4	67.0	521	
Weld RE7 - Kersey	01.0100	Ag Production	16	8	50.0	215	
	09.2992	H.E.R.O.	3	1	33.0		
	14.0300	General Clerical	27	6	22.0	561	
Weld RE8 - Fort Lupton	04.0000	Coop D.E.	11	4	36.0	4152	
	14.0300	General Clerical	26	8	31.0	561	
Weld RE10J - Briggsdale	01.0100	Ag Production	0	0	0	215	
	14.0300	General Clerical	4	2	50.0	561	
Weld RE11J - New Raymer	01.0100	Ag Production	6	2	33.0	215	
	14.0300	General Clerical	3	2	67.0	561	
Weld RE12 - Grover	01.0100	Ag Production	3	2	67.0	215	
	14.0300	General Clerical	8	1	12.5	561	

Table 8
PROGRAM COMPLETER DISCREPANCY MATRIX - FOR SCHOOL DISTRICT
NORTHEAST PLANNING REGION
(continued)

SCHOOL OR SCHOOL DISTRICT	PROGRAM		TOTAL COMPLETED PROGRAM	TOTAL PLACED	RATE	NEED	SURPLUS
Aims Community College - Greeley	01.0100	Ag Production	8	6	75.0	215	
	07.0700	Health Occupations	14	2	14.0		
	09.0203	Food Management	26	8	31.0		
	14.0200	Data Processing	12	0	0		(174)
	16.1081	Electronic Tech.	13	1	8.0		(158)
	16.1992	Drafting	6	0	0	86	
	16.6011	Pilot Training	5	1	20.0		(62)
	17.0301	Body and Fender	35	6	17.0		(154)
	17.0302	Auto Mechanics	51	16	31.0		(178)
	17.1099	Construction Trades	27	6	22.0	576	
	17.1900	Printing Press Occupations	8	2	25.0	181	
	17.2306	Combination Welding	36	3	8.0		(143)
	17.3100	Small Engine Repair	16	2	12.5	152	
Yuma RJ1 - Yuma	01.0100	Ag Production	23	10	43.0	215	
	04.0000	Coop D.E.	17	9	53.0	4152	
	07.0303	Nurse Assistant	3	1	33.0	922	
	14.0700	Steno & Secretarial	6	2	33.0	950	
	17.2306	Combination Welding	4	2	50.0		(143)
Yuma RJ2 - Wray	01.0100	Ag Production	14	3	21.0	215	
	1 .0300	General Clerical	39	2	5.0	561	
	17.0302	Auto Mechanics	6	3	50.0		(178)

Table 9
Comparison of Average Placement Rates
and Completer Rates for a Sample of AVS Programs

SAMPLE OF PROGRAM	Area Vocational School (Secondary Students)		Statewide (Secondary Students)	
	Total Completion Rate	Total Placement Rate	Total Completion Rate	Total Placement Rate
	Percent	Percent	Percent	Percent
01.0100 Production Agriculture	24.5 *	43.5	16.0 *	36.3
04.0000 Coop D.E. Programs	61.8	51.0	45.2	50.7
14.0200 Data Processing	66.4	26.3	62.8	23.0
14.0300 General Clerical	30.5 #	24.8	33.5 #	29.1
17.0302 Auto Mechanics	40.7	37.5	38.1	36.7

* Most Production Agriculture are four year programs.

Many Clerical are three year programs.

Table 10
Cost Comparison for Various
Delivery Systems for a Sample of Programs

SAMPLE OF PROGRAM	COST BY TYPE OF DELIVERY SYSTEM			
	Large Independent LEA Cost/FTE	Small Independent LEA Cost/FTE	Area Vocational School Cost/FTE	Total State Cost/FTE
01.0100 Production Agriculture	2,489.91	3,402.45	2,883.23	2,528.34
04.0000 Coop D.E. Programs	1,586.20	2,022.31	1,455.51	1,683.67
14.0200 Data Processing	4,223.40	--------	3,869.62	4.078.97
14.0300 General Clerical	1,856.60	1,914.25	1,740.83	1,660.76
17.0302 Auto Mechanics	1,848.08	2,223.11	2,367.85	1,850.55

Sample of schools taken from the FY 1979 Cost Effectiveness Report.

Case Study

A second strategy was to complete case studies of several area vocational schools in order to more specifically identify operational styles, program delivery systems, and general impact of vocational education on students in the area. The following are summaries of the case study questions by the various roles interviewed.

Summary of Site Visits and Surveys

Seven area vocational schools were visited by two-member evaluation teams in order to more specifically define the type of delivery system and its impact upon the surrounding cooperating and noncooperating schools. The area vocational schools visited included state community colleges, locally controlled community colleges, area vocational schools operated by independent school districts, and area vocational schools governed through boards of cooperative services. Each site visit included interviews with local vocational administrators, counselors, teachers, students, and administrators from cooperating and noncooperating school districts.

Area Vocational School Administrator

Eighteen administrators were interviewed in the seven site visits. In the on-site visit interviews with the administration of the area vocational schools, it was found that each school allocated the number of positions available in their secondary vocational education program in a slightly different manner. However, there were some general strategies used.

The most prominent system for allocating the positions available for students was the utilization of slots. In this instance, the area

vocational school allocated to each of the cooperating schools a certain number of positions (slots) within a class. It was then the responsibility of the cooperating schools to fill those positions with students.

Some independent area vocational schools contracted with cooperating schools on an "as needed" basis. In this manner, the cooperating school was not obligated for a particular program unless they wished to enroll students. Further, if they wished to enroll students in a particular program and that program was full, the area vocational school was not obligated to provide the service to the cooperating school. The data indicated that area vocational schools generally addressed cooperating school districts' perceived vocational needs. There were a few schools that would send more students if openings were available.

A third general type of enrollment used was through a pre-enrollment plan where students actually signed up for vocational education classes at the area vocational school or through their counselor at the home high school. This type of enrollment generally took place in an independent area vocational school within a district which had a large in-district enrollment from local high schools.

Problem Areas. When the administrators from the area vocational schools were asked what they considered to be the major problem in providing service to the local high school, scheduling conflicts between the area vocational school and cooperating school was the reply most frequently given. These conflicts arose from different school calendars and from the fact that students had other types of requirements and priorities that conflicted with the area vocational school schedule.

An example of conflicts in school calendars was the variation in scheduling spring vacations among the area vocational school and the

cooperating schools. This problem was compounded with the community college area vocational school offering secondary programs. Other conflicts reported were that students frequently had to take a required course at the local school that conflicted with the time the vocational education program was offered; or a student wished to participate in extracurricular activities at the home high school.

Another problem cited by the area vocational school administrator was that of extensive travel time and distance. It was indicated that if a student had to spend more than one class period traveling, the time commitment made it almost prohibitive for that student to enroll in a program at the area vocational school. Other administrators mentioned the lack of funds, the lack of communication, and competition with programs at the cooperating school as concerns.

Staffing. The evaluators attempted to assess the extent to which the instructional staff was utilized for secondary, post-secondary, and adult programs. It was found that the utilization of the instructional staff depended upon the specific area vocational school. Most post-secondary institutions utilized an extensive number of part-time faculty to teach their adult and post-secondary programs. There were, however, no consistent patterns of staffing among the seven institutions visited. There were some institutions that used full-time staff for both secondary and post-secondary programs and there were others that used separate instructional staff for the secondary and the post-secondary programs. The evaluators could not discern any appreciable difference in program quality among the variations of staffing patterns.

From the area vocational school administrators' points of view, the cooperating schools were involved and did provide input into the

development of programs. Further, the administrators pointed out that the Advisory Committee played an important part in reviewing needs for new programs and making recommendations for the implementation of those programs. There were some area vocational schools that did not involve the cooperating school in the decision-making process for new programs. Also, it was indicated by most area vocational school administrators that the cooperating schools were not formally involved in the evaluation of the programs. Feedback was obtained from local administrators, counselors, and students concerning the program.

The administrators stated that the major problem in providing vocational education for post-secondary and adult students was the lack of funding and facilities for those students. It was emphasized, particularly in the adult education area, that present state funding policy makes it difficult to provide quality services for the adult student that are delivered differently from that of the post-secondary program.

Major strengths of the area vocational school as seen by its administrators were: (1) more programs offered to the students than could otherwise be offered by the local school, (2) scheduling flexibility provided to the student through the area vocational school, (3) devoted and well-qualified instructors, (4) stronger employment placement, (5) elimination of duplicate facilities and equipment, and (6) curriculum based upon a national business and industry analysis. These strengths were fairly well supported by all area vocational school administrators.

Weaknesses identified by the administrators were: (1) lack of funding to acquire adequate facilities and equipment, (2) the cost of transportation, (3) scheduling difficulties, (4) stiff general education requirements or other graduation requirements at the home high school, (5) lack of

adequate vocational counseling, and (6) a general need for a unified vocational philosophy among cooperating school administrators, counselors, and area vocational school administrators and counselors.

The administrators were asked specifically what was being done to meet the needs of adult students. The administrators saw their efforts as working through the Advisory Council and working to provide short-term workshops and on-site in-service training for adults as the primary means for identification and delivery of adult education programs. There were two out of seven area vocational schools that had recently conducted a community survey to determine the adult education needs.

Communication was seen as an essential component for a successful area vocational school. Administrators of each area vocational school set up several formal channels of communication between and among the area vocational school and cooperating schools. Each area vocational school had periodic formal meetings with counselors and administrators from the cooperating schools. Some schools kept formal records on students and provided this information to the cooperating school. Also, there appeared to be strong information communication channels through correspondence, telephoning, and personal contact.

It was the general observation of the evaluator that the more decentralized the administrative structure for the area vocational school was, the greater the difficulty the school had in communicating to the administration of the cooperating school.

The area vocational schools all reported attendance to the home high school for secondary students. Some area vocational schools had attendance policies of their own, others relied upon the attendance policy of the cooperating school. Reports were made to the cooperating school on a daily, weekly, or quarterly basis.

Vocational Administrators' Survey

As part of the administrators' survey, a series of questions were asked of both area vocational school administrators and cooperating school administrators. These individuals were either credentialed vocational administrators or designated vocational administrators for those schools too small to have a local director. The response ratings for each question may be found in Table 11. The intent of this section is to provide the reader with a correlation between the administrators' perceptions and concerns of the delivery of vocational programs via the area vocational school system.

By reviewing the data in Table 11, the reader will note a fair amount of agreement between area vocational school and cooperating school administrators. In reading the table item by item, one can see that the administrators were more favorable towards their own program and activities than they were of the unit with which they cooperate. For instance, area vocational school administrators reported students were lacking in basic math and communication skills; whereas, the cooperating school administrators suggest these needs had been met prior to sending the student to the area vocational school.

The area vocational school administrators appeared more satisfied with the extent of cooperation that existed between the area vocational school and cooperating schools than were the cooperating school administrators.

Administrators of both types of schools indicated adequate efforts were being made to coordinate course content between the cooperating school and the area vocational school. Also, both area vocational school and cooperating school administrators agreed that close cooperation existed between their units. Other commonalities provided by the

Table 11
Summary of Vocational Administrators' Responses

QUESTIONS	AVERAGE RATINGS	
	AVS Administrator	Coop. School Administrator
Efforts are made to coordinate course content between cooperating schools and AVS.	* 2.00	1.87
Most basic math and communications skills required by students entering occupational programs have been adequately covered in our school.	2.65	1.84
Close cooperation exists between AVS and cooperating schools.	1.70	1.53
Students have an adequate choice of vocational programs.	1.88	1.79
Scheduling is a major problem in providing vocational programs to students.	2.17	2.43
Counselors recommend vocational courses to interested students of all ability levels.	2.42	1.87
Progress of students attending AVS programs is regularly reported to the local high school.	1.35	1.60
Attendance monitoring is a major problem with students enrolled in AVS programs.	2.63	2.60
Travel time is a major problem in arranging for students to attend AVS programs.	2.13	2.41
Cooperating schools are involved in planning programs for the AVS.	2.39	2.55
The AVS delivery system is currently meeting our needs.	NR	2.06
Our district is well-informed of the program offerings at the AVS.	NR	1.61
Members of our staff are actively involved in curriculum development and evaluation of AVS programs.	NR	2.71

* 1 = Strongly Agree
2 = Strongly Disagree

administrators were an adequate choice of vocational offerings, and scheduling viewed as a major problem. It appeared the cooperating school administrators felt strongly that counselors recommended vocational courses to interested students of all academic levels; whereas, area vocational school administrators had a tendency to disagree with that statement. Both the area vocational school and cooperating school administrators agreed that progress of students attending area vocational school programs was reported to the local high school on a regular basis. Administrators from the area vocational school and cooperating schools were in disagreement concerning the issue of attendance monitoring as a major problem. They did agree that travel time was a problem. Lastly, both the area vocational school and local school administrators agreed that the local schools were involved in planning programs for the area vocational school.

The last three responses in Table 11 deal with cooperating school administrators' evaluation of the area vocational programs. The cooperating school administrators agreed that the area vocational school delivery system was currently meeting their needs. Furthermore, they agreed that their district was well-informed about program offerings at the area vocational school. However, the administrators felt their staff was not actively involved in the development of curriculum and evaluation of the area vocational programs.

Overall, the differences in perceptions of the area vocational school and cooperating school administrators were slight. They seemed to indicate that the two basic problems confronting the area vocational school system were travel time and program scheduling. Further, it appeared

that the area vocational school administrators would like to have students better prepared in some of the basic skills prior to enrollment in vocational ecucation programs. There appeared to be some slight differences in the perceptions of the kinds of students enrolled in the area of vocational school programs; that is, the area vocational school administrators felt the students sent to the area vocational school may not represent all ability levels, whereas the cooperating school administrators felt more strongly that they did.

Determination of Number of Students Accepted. Each area vocational school was asked how they determined the number of students to be accepted from each of the cooperating schools. There were several methods used in determining the number of students allowed entrance into area vocational school programs from the cooperating schools.

These were:

(1) Enrollment on a first-come, first-serve basis. This alternative was generally used in the independent area vocational schools.

(2) Allocation of slots or spaces based upon historical participation by each school.

(3) Allocation of slots on the basis of the size of the participating schools.

(4) Allocation of slots based upon the amount of funding contributed to the area vocational school.

In most cases where extra slots or vacant positions existed once enrollment was completed, other schools had the opportunity of filling the vacancies on a first-come, first-serve basis. It appeared that those schools that enrolled students by name experienced a problem with no-shows. These were students who initially enrolled for a vocational education

program but did not show up for the classes. On the other hand, schools that enrolled students by slot leaving it to the local school district to assign the student to the slot, did not have the no-show problem. In further investigating this situation, it was found that the cooperating school with a required or assigned number of slots took it upon themselves to fill any vacant slots that the school had prior to the first day of class.

Percent of Secondary, Post-Secondary, and Adult Students. The evaluators found it difficult to establish percentages of student participation at the various levels within an area vocational school program. Administrators were asked to give an approximation of the distribution of students among secondary, post-secondary, and adult programs. Table 12 provides these estimates.

Table 12
Total of all Area Vocational School
Student Enrollment Estimates
by Secondary, Post-Secondary, and Adult

Estimates	Percent
Secondary student enrollment	27.0
Post-secondary student enrollment	38.5
Adult student enrollment	24.8

It appeared to be that those school districts primarily operated through a board of cooperative services or independent school districts had a higher percent of secondary student enrollment. Further, these schools appeared to clump together their adult and post-secondary program enrollment. On the other hand, junior community colleges appeared to have a higher emphasis on post-secondary programs. It was also

observed that many of the programs did not emphasize adult vocational education as a separate entity from post-secondary vocational education programs. This was done primarily because of the opportunity for FTE generating classes which substantially assist in financing the institution's operation. With the exception of two programs, there appeared to be little explicit effort to serve the adult needs of the community. Some of the adult programs were identified as being CETA sponsored programs or other special program activities. Table 13 provides estimates of the distribution of enrollments as reported by the area vocational school administrators when surveyed through site visits.

Table 13
Percentage Distribution of Enrollment
by Secondary, Post-Secondary, and Adult Programs
According to Site Visit Data

School	Secondary	Post-Secondary	Adult
1	80	20	*
2	50	40	10
3	10	22	68
4	8	84	8
5	45	54	1
6	50	50	*
7	.4	46	53

* Combine post-secondary and adult programs.

Number of Secondary School Districts Served. The area vocational schools visited during the site visits serviced from one to seventeen school districts. Some area vocational schools served a small number of school districts, but were in urban areas and consequently had students from many high schools within a few districts. There was one area vocational school that served fewer than 50 secondary students.

Organization of Instructional Staff. There were basically two types of instructional staff organizations. The first was the utilization of the instructional staff to teach both secondary and post-secondary students, where for instance a welding instructor might have a secondary class in the morning and a post-secondary class in the afternoon or evening. The other organizational structure was to have a separate division for the secondary program. This division, many times, was isolated from the post-secondary program in terms of administration and in some cases facilities. This type of organization generally had separate staff to teach secondary students versus post-secondary students. In many cases, secondary and post-secondary instructors taught occasional adult education evening classes in their specialty area. The area vocational schools that tended to have separate secondary programs were those associated with junior community colleges. The BOCES operated and independent school operated programs generally were organized so that the same staff taught both secondary and post-secondary courses.

Program Times. It was indicated that, for the most part, secondary students were provided opportunities for vocational education programs in the morning and afternoon. It was also indicated that the post-secondary and adult programs were offered in the morning, afternoons, and evenings. Most schools emphasized that the adult programs were primarily offered in the evenings.

Program Development. The site visits appeared to indicate that there was a small amount of cooperation with the local education agencies in developing new programs. This cooperation seemed to exist more strongly in those types of administrative structures where the secondary area vocational school program was under separate administration. Area

vocational schools used devices such as periodic administrative and counselor meetings to help provide input in program planning. Others used a system that provided cooperating schools with a range of programs that might be offered, and then through the registration process those programs attracting a sufficient number of students were offered and those that didn't were not offered. There appeared to be limited input from the local schools in the development of new programs for the area vocational school in general.

Program Evaluation. For the most part, cooperating schools were not involved in the program evaluation of those programs offered through the area vocational school. It was seen by the evaluation team that this was not an overt effort to exclude input from the local education agencies. Further, there appeared to be little involvement from the cooperating schools in the evaluation of post-secondary and adult programs. It was also observed that the administration from the area vocational schools did not, for the most part, have a systematic program evaluation procedure for secondary, post-secondary, or adult programs.

Major Problems in Providing Vocational Education Programs--Secondary. Scheduling appeared to be the one major problem that area vocational school administrators were confronted with. This problem became more severe as the area vocational school served a greater number of school districts. Each school district appeared to have its own calendar, its own set holidays, and its own start and stop times. Trying to coordinate services that are convenient to each cooperating school and yet maintain a unified schedule, becomes next to impossible. Another problem frequently mentioned was the lack of adequate funding to provide for the demand for secondary vocational education programs. There were a few schools

that were concerned about the lack of cooperating schools' participation. Some administrators felt that because of declining enrollment, the cooperating schools were keeping their students at home in order to maintain their own FTE. Other problems mentioned were balancing the enrollment between the morning and afternoon sessions, and then providing transportation. There were a few area vocational school administrators that reported the scheduling problem was broader than just matching the schedule of the cooperating schools to that of the area vocational school. Schedule conflicts with extracurricular activities, sports, and other home school obligations were prevalent.

Major Programs in Offering Vocational Education Programs--Post-Secondary, Adult. The administrators unanimously agreed that lack of funding and inadequate facilities were their major problems in offering post-secondary and adult programs. The lack of funding for maintaining and updating equipment for the high technology programs was also a major concern of the administrators. Further, there was a feeling by the area vocational school administrators serving the rural areas that an unreal expectation of cost per student is made. The area vocational schools serving the rural areas expressed concern about the delivery of adult and post-secondary programs in a satellite format. It was reported that the schools did not have funds to provide the facilities and offer satellite programs in certain occupational areas.

Strengths of the Area Vocational School Program. The area vocational school administrators were asked to list what they considered to be the major strengths of their secondary, post-secondary, and adult vocational programs. The following is a composite of the most frequent responses given: (1) the ability of the area vocational school to offer a wider

variety of programs to secondary students, (2) providing equipment that is current and representative of that used in business and industry, and (3) attracting highly qualified instructors dedicated to teaching the secondary students. On the post-secondary and adult levels, the administrators felt the major strengths of the program included the ability to provide programs when they were needed to the adult population. Also, it was emphasized that the programs had modern facilities and equipment and highly trained instructors. List 1 contains these strengths.

Major Weaknesses of the Program. List 2 provides the major weaknesses of secondary and post-secondary and adult programs as seen by the area vocational administrators. The major weakness indicated by the administrators for the secondary program was the lack of the ability of the area vocational school to match the home school classes with the schedule offered by the area vocational school. For some rural schools there was a weakness in terms of low enrollment or high cost per student for particular kinds of programs. There also appeared to be some indication that counseling is sometimes a problem and one administrator indicated a problem in finding staff that would work well with secondary students. Weaknesses cited for post-secondary and adult programs were the lack of facilities in high demand areas and inadequate funding. Also, several instructors noted that the funding formula for secondary, post-secondary, and particularly adult programs, was not equitable and in the case of adult programs, discourages institutions from developing or expanding programs.

Communications. It was found that each area vocational school had unique communication channels, even though the methods utilized were somewhat the same. Most area vocational schools held administrators'

Secondary

- Specialization. One thousand hour training program. Strong employment placement.
- Eliminates duplication of facility and expensive equipment. Creates a special atmosphere for students.
- Accountability based upon completions and job placement, also strong faculty.
- Quality dedicated teachers. Devoted instructors. High placement rate.
- Good student placements. Specific preparation for work. Good input from high schools.
- Good local community support.
- Good interest and support.
- Availability of program and program space. Used existing facilities in community.
- Cooperation from school district. Strength is to have adult, post-secondary, and secondary together.
- Same career—all levels. Broad offerings. Cooperative relationship with local education agency. Can provide quality instruction. Can offer many more vocational education programs than local school.
- Number of programs provided. Scheduling flexibility by integrating post-secondary programs.
- Integrating students into adult situations.
- Getting students out of secondary school.
- Having students in classes with adults and out of high school atmosphere.
- Involvement of business and industry.
- Accessibility of school program.
- Good equipment. Offering unique programs not offered in home high school or career education center.
- Curriculum based on business and industry analysis, also students are integrated with adults.

Post-Secondary/Adult

- Motivation and desire of students.
- They really know what they want and actively pursue jobs.
- Quality dedicated teachers. Better "hands-on" equipment.
- Flexible schedule.
- Maximum opportunity for both day and evening students. Quality of staff—i.e. law enforcement, lawyer, photographer, etc.
- Offer an alternative to students wishing not to attend college that many smaller schools can't provide.
- Modern facilities and equipment. Organizational structure.
- Advisory Committee input. Diversity of programs.
- Provides more flexibility.
- Sharing facilities. Strong input from industry.
- High placement ratio.
- Use task analysis from industry/business input.
- Competent teachers and well-equipped shops.
- Flexibility of school—provide training when training is needed—not at convenience of school.
- Advisory Committee involvement. Accessibility, cost, open-entry policy, program flexibility, no problem attracting very good staff.
- Curriculum based on business and industry analysis, also students are integrated with adults, plus open-entry, open-exit programs.
- Ability to offer open-entry, open-exit programs to post-secondary students for pre-employment training.
- Can offer more programs.
- Communication with industry. Community linkage.
- Broad offering for upgrading and retraining.
- Programs are offered on demand to meet personal vocational objectives at a reasonable cost.
- Flexibility of wide program offerings, for adults already employed who desire and need upgrading.
- Open 12 months a year on open-entry, and open-exit basis.
- Diversified offerings for adults in community.
- Flexibility in offering adult classes, RE: time, place, type of classes.

List 1
Major Strengths of the
Area Vocational School

Secondary

- Matching students' class hours available with classes offered at the area vocational school.
- Hours that are required for high school academics which cut into vocational programs at the area vocational school.
- Not enough enrollment. Communication system of home high school in notifying high school of problems of students. Travel time costs instructional time.
- Students don't spend enough time in program.
- Past problems overcome—was in poor counseling, (new counselor; problems overcome).
- Lack of adequate funding for specialized programs.
- Students are not counseled here as much as they should be.
- Home schools try to keep enrollment.
- Reclaiming resources RE: budget for supplies, etc.
- Lack of sophisticated, modern equipment and tools.
- School lacks funds.
- Transportation is getting to be a problem.
- Lack of internal vocational education philosophy at the local education agency.
- Counselors in the local education agency are not prepared to provide vocational counseling.
- Identifying and utilizing teachers who are turned on to and are willing to work with secondary students.
- Distance.
- Communication.
- Lack of on-site supervision.

Post-Secondary/Adult

- Inability to individualize based on state guidelines. Need flexibility not afforded by the State Board for Community Colleges and Occupational Education. FTE is not available.
- Lack of facility in high demand area.
- Lack of development of individualizing instruction. Students' evaluation of instruction (i.e. 8-10 percent of students say don't know where they stand in class).
- Having adequate budget and the ability to house those students that desire EGOS services.
- Funding by state and federal sources is poor to meet existing demand, and recognition by educational hierarchy.
- Really don't know what happens to students who leave before completing program.
- Occasionally classes become too large and too many students at different levels to work with efficiently.
- Hard to identify any weaknesses; facility limitations.
- Method of funding.
- Limited facilities.
- Lack of credit and lack of revenue for adult programs. RE: little or no subsidies.
- Should be doing more for adults.
- Lack of funds.
- Tough to administer.
- Needs a lot of coordination—attendance, transportation.
- Local, state, and federal entities do not think adult is a mandated program.
- Really don't know what happens to students who leave before completing program.

List 2
Major Weaknesses of the
Area Vocational School

meetings at least twice a year and some more often. Also, there were counselor meetings that brought together the counselors from the cooperating schools to discuss programs and scheduling concerns. It appeared in all cases, that information lines of communications were well established and that local administrators and the area vocational school staff appeared to be able to resolve problems as they arose.

Placement and Job Development Services. The utilization of job development specialists was varied. There were two schools that did not have job development or placement specialists; both of these were rural community colleges. There were two schools that had job development placement specialists for both the secondary and post-secondary students and provided extensive services for all students. The remainder of the area vocational schools provided some job development and placement services to students. Two of those emphasized providing their services to post-secondary students, whereas, one emphasized providing services to secondary students. It appeared that the adult students were provided the least amount of job development and placement services.

Attendance Policies. There appeared to be two distinct ways of handling attendance. The first was to adopt the attendance policy of the cooperating schools. In this manner, the area vocational school reported the students' attendance back to the administration of the cooperating school. The other type of policy was to establish a minimum standard of expected attendance, (such as not missing more than four classes per semester). With this policy, the area vocational school had retained the right to drop a student if he or she had irregular attendance. In this case, the area vocational school also reported back to the

cooperating school the students' attendance and if attendance became a problem, tried to work with the counselor and student to minimize this problem. It was found that a different set of attendance requirements were in place for post-secondary students. Most of these attendance policies stated it was the instructors' responsibility to determine when a post-secondary student needed to attend class. The same attendance policy applies for adult vocational education classes. Students' progress, in every case, is reported formally at the end of a quarter or semester. Further, most area vocational schools supplemented disrecord with progress reports particularly in the case where a student was failing in his work. Also, it was indicated that for these students, supplemental services were available. Post-secondary and adult students were treated somewhat differently in that feedback related to their progress was provided directly to the student. If a student was failing, guidance and counseling and other supplemental services were made available.

For post-secondary programs, each area vocational school had an established attendance policy that provided the instructor with much latitude in how to handle student absences. Students could be penalized for excessive absences by the instructor in some cases, by loss of credit. Also, the instructor could drop students from the roster if excessive absences were the case.

Supplemental Services. It was found that most of the area vocational schools had supplemental services to assist secondary, post-secondary, and adult students in making up deficiencies in their academic work. In most cases, students in adult programs were not served through supplemental services. These programs were non-graded and required minimal service. One community college indicated that they did not provide supplemental

services to secondary students, but referred them back to the high school counselor.

Student Progress Reports. Student progress was reported through the use of letter grades on a regular nine-week quarterly basis. Also, many schools provided the cooperating school with a progress report of students that were not doing well in a vocational education program. There appeared to be a good communications channel between the cooperating school and the area vocational school as far as student attendance and progress reporting were concerned.

Travel Distance. It appeared that the majority of the students attending area vocational schools lived within a 30 mile radius of the school. This was not the case in some of the rural programs where travel distances up to 60 miles were common. For post-secondary students, it also appeared that the majority of the students enrolled were from a 30 mile radius of the area vocational school. Most adult students enrolled in the program were from a 20 mile radius or less. It appeared in talking to the area vocational school administrators that schools farther than 30 miles away were less likely to participate in the area vocational school programs.

Identification of Adult Needs. There appeared to be two major sources for the identification of adult needs. One was direct communication with business/industry either through a formal survey or on a "per request" basis, and the other was handling requests through the Advisory Committee dealing with adult programs. The area vocational school appeared not to have a systematic procedure for identifying the needs of adults for vocational education programs.

Off-Campus Programs. Most area vocational schools offered off-campus programs at the post-secondary level. There were a few area vocational schools that offered satellite programs for secondary students.

Summary. The administrators from the area vocational school felt they were meeting the needs of the secondary, post-secondary, and adult students. Major concerns had to do with financing of post-secondary and adult programs. A major problem with the secondary area vocational program was that of scheduling. It was found that the overall communication between the area vocational school and the cooperating school was satisfactory and that the administrative structure within the area vocational school appeared to be capable of responding to the problems, concerns, and needs of the secondary, post-secondary, and adult populations.

Cooperating School Administrators' Interviews

Twenty-three administrators, principals, superintendents, or vocational directors were interviewed. A summary of the interviews by question is in Appendix C. In every case, the cooperating school provided some vocational education programs besides those offered by the area vocational school. The major rationale given for offering programs at the home school was that they generally offered programs which were less expensive and which historically had been part of their program. The majority of the schools interviewed, offered vocational education programs to eleventh and twelfth graders. There were, however, some schools that offered vocational education programs to tenth graders.

Most schools were within 20 miles of the area vocational school and student travel time was approximately a half hour one way. For those schools that were farther than 30 miles away, the administrators

pointed out that travel cost and travel time were a problem. In most cases, the cooperating school administrators indicated that the school district provided for transportation to and from the area vocational school. There were two schools that were close enough to the area vocational school that students were required to furnish their own transportation. There were two schools that indicated the area vocational school delivered satellite programs to their area. About fifty percent of the school administrators surveyed indicated that students could enroll in evening adult programs if they wished. These programs are offered either by the local school district or by the area vocational school.

Major Strengths. Figure 25 provides the major strengths of the area vocational school delivery system as seen by the cooperating school administrators. It can be seen that most administrators felt that the broad base of offerings is the major strength of the area vocational school delivery system. It was stated by some administrators that they would not be able to provide the kinds of courses offered through the area vocational school because of the high cost of the programs.

Number of Times Listed	Comments
9	Students have a broad range of programs
8	Instructor
4	Facilities/equipment
3	Cooperative spirit
2	Employer cost savings
2	Quality program courses
1	Trained to the extent that students can find employment
1	They interest the kids
1	Good availability
1	Fair treatment by the area vocational school
1	Satellite programs
1	Good communication
1	Three-hour block concentration in a program area

Figure 25
Major Strengths of the Area
Vocational School Program as seen by
Cooperating School Administrators

Furthermore, the cooperating school administrators felt that quality instruction was a major strength to the program. Also, the quality of facilities and equipment were seen as assets. In general, it would appear that vocational education programs would not be offered to a large number of students if the area vocational school delivery system was not available.

Major Weaknesses. Figure 26 provides the major weaknesses of the area vocational program as seen by the cooperating school administrators. A major weakness pointed out by the cooperating school administrators is the lack of a flexible scheduling process. Other weaknesses mentioned were inconsistencies in the policies and in the monitoring of the students and the problem of transporting students to and from the area vocational school.

Number of Times Listed	Comments
8	Scheduling problem difficult to overcome
4	Transportation is expensive
4	Attendance policies are inconsistent
3	Communication
1	Kids don't like to leave their home school
1	Supervision of students is more difficult
1	Difficult to maintain good communication
1	Lose control of students
1	Grading policies are inconsistent
1	Not enough slots
1	Need more programs/more funding
1	Two-year programs eliminate transfer services
1	Conflict with students extracurricular activities
1	The program costs the district too much, and programs are not up to date

Figure 26
Major Weaknesses of the Area
Vocational School Program as seen by
Cooperating School Administrators

Suggested Improvements. Figure 27 provides suggestions from cooperating school administrators on what can be done to improve the current area vocational school program. There seemed to be no clear-cut area in

which area vocational schools can improve. The suggestions for improvement parallel the comments on the weaknesses of the area vocational school program and provide little direction in terms of problem resolution. It would appear that work is needed in the development of scheduling formats that will allow an area vocational school to service the cooperating schools. This can be developed through an exemplary project or other developmental efforts. Also, sample policy and procedure manuals could be developed for area vocational school programs which would include recommendations for handling discipline problems, communicating to cooperating schools about attendance, grading procedures, curriculum, and program development and evaluation.

Most of the cooperating school administrators felt that the area vocational schools offered adequate adult vocational education programs. There were a few cases in schools in outlying areas where the administrators felt the area vocational school could offer more adult programs within their specific community. Only two of the administrators felt that their schools were not offering an adequate number of vocational education programs. Programs that these administrators felt needed to be implemented dealt with educational handicapped programs, marketing and distribution, and some mining technology programs. Also administrators were concerned about financing area vocational schools. Most felt the cost for sending a student to an area vocational school was high. Also, some administrators felt the community colleges were "double-dipping" by charging high tuition to secondary students and collecting local taxes. Two questions to be addressed are: (1) To what extent is the secondary program part of the institution's mission?", and (2) "What portion of the total cost of program delivery should be bore by the local district area vocational school and/or state?".

Number of Times Listed	Comments
2	Offer more courses
2	Larger facility
2	Develop comprehensive attendance policy
2	Closer communication on disciplinary problems
1	Reduce waiting list
1	Open adult programs to students under 18 years old
1	Flexible scheduling
1	Constant revision of program offerings
1	Provide more slots
1	Coordinate schedule
1	Stop double-dipping in both taxes and tuition
1	Need to bring program and teachers to students rather than transporting students
1	Better student recruiting
1	Better cooperation
1	Better student orientation
1	Provide more satellite programs

Figure 27
Suggestions for Improving the
Area Vocational School Program
from Cooperating School Administrators

Summary of Cooperative Administrators' Survey Responses. Table 14 provides the frequency of responses for various individuals in the local schools. Fifty-nine superintendents, 18 principals, 25 local directors, and 13 others responded to the administrator survey. Of the 122 schools responding, 105 offered vocational education programs in their own schools, 54 schools contracted with an area vocational school, and 15 had joint agreements with another high school. Also, 7 schools contracted with private schools mostly for cosmetology programs, and 23 schools had joint agreements with community junior colleges to offer programs. Many of these junior community colleges were also designated area vocational schools.

Table 14
Administrators of Cooperating Schools Responding to the Area Vocational School Impact Study Questionnaire

Title	Frequency of Response
Local Director	25
Principal	18
Superintendent	59
Other (Those listed as "Other" include: Guidance Directors, Guidance Specialists and Counselors, Administrative Assistants, and Vocational Instructors)	13

Table 15 provides a summary of the other arrangements indicated by the area vocational schools. The administrators indicated that for the schools responding to the questionnaire, 8.1 percent had only seniors involved in their area vocational school programs, 77.4 percent had juniors and seniors involved in the area vocational school programs, 8.1 percent had sophomores through seniors involved in the area vocational programs, and 4.8 percent had freshmen through seniors involved in the area vocational programs.

Table 15
Grade Level of Students Enrolled in Area Vocational School Vocational Programs

Grade	Percentage of Students Enrolled
9	0
10	0
11	1.6
12	8.1
11-12	77.4
10-12	8.1

Table 16 indicates the administrators' perceptions of the programs available to them through the area vocational schools, and further notes the number of schools participating in a particular program. It can be seen that the programs contracted for most often were: auto mechanics, auto body, welding, cosmetology, and data processing.

Introduction to Area Vocational School Administrator Survey

Eleven of the administrators were with area vocational schools governed by a local school district, 9 administrators or 36 percent of the responses were with state system community colleges, 2 administrators or 8 percent of the responses were from administrators from local district community colleges, 2 administrators or 8 percent of those responding were from BOCES operated community colleges, and 1 administrator was from a four year college.

When asking the local administrators what percent of their enrollment was secondary, post-secondary, or adult, the following was indicated. Approximately 28 percent of the total enrollment in the area vocational schools was secondary, approximately 39 percent of the total enrollment was post-secondary, and approximately 25 percent of the total enrollment was adult programs. The range of distribution within any one area vocational school varied tremendously, ranging from a low of 2 percent secondary, to a high of 92 percent secondary; from a low of 8 percent post-secondary, to a high of 100 percent of post-secondary; and from a low of 1 percent for adults, to a high of 68 percent for adults.

Table 16 -

Area Vocational Schools Responding to Questionnaire and Number of Administrators from Each Responding

PROGRAMS	# of Coop Schools having this program available through an AVS	# of Coop Schools actually participating in the Vocational Program	PROGRAMS	# of Coop Schools having this program available through an AVS	# of Coop Schools actually participating in the Vocational Program
Welding	25	21	Commercial Art	11	0
Auto Body	28	23	Criminal Justice	4	4
Auto Mechanics	37	30	Fire Science	0	0
Cosmetology	21	19	Foundry	0	0
Masonry	9	9	Heavy Equipment Mechanics	5	4
Cooperative D.E.	3	3	Upholstery	1	1
General Clerical	0	0	Recreational Vehicle/ Sportscraft	1	1
Building Trades	12	7	Accounting	2	2
Agriculture Production	1	1	Vocational Agriculture	11	9
C.O.E.	2	2	Service Station Management	0	0
Child Care	13	13	Metals	2	2
Carpentry	10	7	Woods	1	1
Marine Technology	3	3	Photography	5	5
B.O.E.	8	8	Cooperative G	0	0
Data Processing/Computer Operations	26	25	Power Sewing	1	0
Surveying	3	3	Air Frame and Engine	1	0
Drafting	13	10	Barbering	1	0
Machine Shop	11	10	Shoe Repair	0	0
Nurse Aide	15	10	Plumbing	0	0
Aviation	5	2	Technical Occupations	2	2
Graphic Arts	7	4	Printing Trades	0	0
Industrial Mechanics	5	0	ICE	0	0
Health Occupations	12	9	Fiberglass	1	1
Electronics	25	19	Farm Mechanics	1	1
Radio/TV Repair	3	2	Water/ Waste Water	0	0
Mechanics	2	1	Consumer/Homemaking	0	0
Construction/Maintenance	15	15	Industrial Cooperative Education	0	0
Appliance Repair	3	2	Real Estate	0	0
Apparel Design	1	0	Coop. I & I	0	0
Food Service	2	0	Small Engine Repair	0	0
Stenographer/Secretarial	3	2	Electrical Trades	1	1
Ornamental Horticulture	5	5	Office Practice	1	1
Air Condition/Refrigeration	7	6	Typesetting	1	1
Broadcasting	7	7	Diesel Mechanic	1	1
Commercial Arts	0	0	Electrician	0	0

NOTE: The above information was taken from a survey instrument given to cooperating school administrators. This is <u>their</u> perception of programs that are available to them.

Table 17 provides the list of the area vocational schools responding to the questionnaire and the number of administrators from each school responding. Further, Table 18 indicates the contracting arrangements between the area vocational schools and various school districts as reported by the cooperating school administrators. It should be noticed that Northglenn/Thornton is not an area vocational school, however Westminster 50 does contract with this school. One can check this data against the information reported in the VE 115 found earlier in this report. Table 19 further provides the names of schools contracting with more than two agencies. Strasburg, for instance, contracted with both Aurora Vo Tech and Bennett High School for vocational education programs. Greeley District 6 contracted with Aims Community College and Highland Hills Beauty Academy.

Table 17
Schools Responding to the
Area Vocational School
Administrator Questionnaire

Schools	Number of Administrators Responding
Arapahoe/Douglas Area Vocational School	2
Pikes Peak Community College	3
Mesa College	1
San Juan Basin Area Vocational School	1
Pueblo Vocational Community College	1
Northeastern Junior College	1
Lamar Community College	1
Otero Community College	2
Aims Community College	1
Emily Griffith Opportunity School	5
Boulder Valley Area Vo Tech School	4
Colorado Mountain College - Leadville	1
Delta - Montrose Area Vo Tech School	1
Warren Area Vo Tech School	1

Table 18
Schools that Contract with Area Vocational Schools
as Reported on the Area Vocational School
Impact Study Questionnaire

SAN LUIS VALLEY AVS
- Monte Vista - District C8

ARAPAHOE/DOUGLAS AVS
- Cherry Creek 5
- Littleton 6
- Sheridan 2
- Douglas County RE1
- Englewood
- Aurora 28J

PIKES PEAK COMMUNITY COLLEGE
- Colorado Springs 11
- Harrison 2
- Widefield 3
- Limon RE4J
- Hanover 28
- Manitou Springs District 14
- Cheyenne Mountain District
- Lewis-Palmer District 38
- Woodland RE2

COLORADO MOUNTAIN COLLEGE - GLENWOOD SPRINGS
- Garfield RE2

MESA COLLEGE
- Mesa County Valley District 51

SAN JUAN BASIN AVS
- Mancos RE6
- Dolores District RE4A

MORGAN COMMUNITY COLLEGE
- Brush RE2J

LARIMER COUNTY AREA VO TECH CENTER
- Poudre R1
- Thompson R2J

PUEBLO VOCATIONAL COMMUNITY COLLEGE
- Pueblo County 70
- Custer County Consolidated

NORTHEASTERN JUNIOR COLLEGE
- Valley RE1 - Sterling
- Buffalo RE4 - Merino

LAMAR COMMUNITY COLLEGE
- McClave RE2
- Cheyenne Wells District 2

OTERO COMMUNITY COLLEGE
- Las Animas RE1
- Crowley RE1J
- East Otero R1
- Swink District 33
- La Junta District
- Rocky Ford District

AIMS COMMUNITY COLLEGE
- Greeley District 6
- Windsor RE4
- Keenesburg RE3
- Platte Valley RE7
- Ault - Highland RE9

EMILY GRIFFITH OPPORTUNITY SCHOOL
- Denver District 1

BOULDER VALLEY AVTS
- Boulder Valley RE2
- St. Vrain Valley RE1J

COLORADO MOUNTAIN COLLEGE - LEADVILLE
- Lake County R1

DELTA - MONTROSE AVTS
- Delta 50J
- Montrose County RE1J

LA JUNTA COMMUNITY COLLEGE
- Manzanola 3J

TRINIDAD
- Hoehne District 3

WARREN AVTS
- Clear Creek RE1
- Gilpin County RE1
- Platte Canyon 1 - Bailey

AURORA AVTS
- Bennett 29J Deer Trail 26J
- Elizabeth C1 Byers 32J
- Elbert District 200
- Strasburg District 31J

Table 19
Schools that Contract to More than One School
as Reported on the Area Vocational School
Impact Study Surveys

Strasburg District 31J
Contracts to: (1) Aurora Vocational Technical School
(2) Bennett District 29J

Greeley District 6
Contracts to: (1) Aims Community College
(2) Highland Hills Academy

Boulder Valley RE2
Contracts to: (1) Boulder Valley AVTS
(2) St. Vrain Career Development Center

Douglas County District RE1 - Castle Rock
Contracts to: (1) Arapahoe/Douglas AVTS
(2) Aurora Vocational Technical School

Cheyenne Wells District R2
Contracts to: (1) Lamar Community College
(2) Northwest Area Vocational School
Goodland, Kansas

Counselor Interviews and Survey

Ten counselors, or individuals having counseling responsibilities were interviewed as part of the site visits. It was found that three of the programs did not have a vocational counselor for either secondary or post-secondary programs. Other individuals such as the supplemental services director, or the special needs or adult education director provided some counseling services for these institutions. A summary of the counselors' responses to the survey and interview instruments is in Appendix C.

The types of services provided to secondary and post-secondary students included: talking with seniors and other potential students about the programs, providing assistance and job placement for students graduating from a program, updating records and files on students,

completing needs assessment, and completing a turnover rate study. Also, guidance counseling and testing services were provided to students.

Further, some of the counselors used the career van to provide career exploration experiences for students attending the area vocational school. Counselors indicated, for the most part, that students served through the area vocational school programs are from within a 20 mile radius of the school.

There were two schools that had extensive satellite programs for secondary, post-secondary, and adult students. The counselors, for the most part, saw the same strengths and weaknesses of the area vocational school as did the administrators. The following items were listed as major strengths of the area vocational school: strong instructional staff, and good facilities and equipment. Major weaknesses of the area vocational school included: scheduling problems and transportation problems. Also, the area vocational school counselors felt that there needed to be more emphasis put on the counseling and job development functions for the area vocational school programs.

Recruitment methods and procedures of students from feeder schools varied from one area vocational school to another. The more organized systematic processes included: schedule presentation to school assemblies, development of promotional literature, and working with the local cooperating school counselors to provide information about area vocational school programs. Other institutions relied more on word-of-mouth communication with administrators through regular administrator meetings. Those schools with larger counseling staff, in general, had more sophisticated recruitment procedures.

The area vocational school counselors, for the most part, indicated that the types of students enrolling in the area vocational school program were individuals having problems in the local school setting. This does not necessarily mean that they were of low intelligence or ability. There were some programs that appeared to attract highly qualified students. It appeared that the programs with the highest student demand had the highest caliber of students enrolled.

Career education, for the most part, was not a responsibility of the area vocational school. However, each area vocational school had some sort of career exploration strategy. Some used the career van while others used more intense "hands-on" experiences with short courses that allowed students to sample various occupations. Overall, the area vocational school counselors were supportive of the area vocational school program and felt that additional emphasis needed to be placed on counseling strategies, guidance counseling, and job development.

The evaluator also interviewed 18 counselors from cooperating schools. Of those, few were vocationally certified. Approximately half had a vocational education philosophy. Most schools selected students for vocational education programs in their schools based upon an expressed interest of the student. There were some programs, however, that indicated a need for teacher interview or parent consent prior to enrollment in the in-school vocational education program. Students selected to attend the vocational program with the area vocational school, on the other hand, were screened. This was particularly true in those program areas where more individuals wanted to attend than there were slots available. The screening process included an expressed student interest, attendance and behavior records, as well as performance in related classes.

There were a few programs that required some prerequisite training that the students had to complete prior to enrollment. In general, the selection process for the area vocational school programs was more intense than that for vocational education programs in the home schools.

There were a wide range of career education experiences offered through the local school. Some schools had a K - 12 articulated career education program, where other schools offered junior high exploration orientation experiences, and still others offered adhoc experiences such as career days or career presentations. There were several schools that indicated that the career education provided was very limited and dealt primarily with informal contacts with the counselors and teachers.

Most schools provided some kind of occupational information testing program. These were commonly the use of the ASFAB, the GATB, and some used the Strong-Campbell Interest Inventory, or the Kuder Preference Test. Approximately 30 percent of the schools had systematic testing programs where the other schools provided testing on a request basis. The counselors felt that the testing programs, however implemented, were useful and they did use the information in providing career guidance for the students.

The guidance counselors provided three specific answers in terms of what type of students enroll in the area vocational school programs. About 50 percent of the counselors stated the students enrolling in area vocational school programs were a cross section of the students in the school. This included college bound and non-college bound students. The second group of counselors stated that students who enroll in area vocational schools had specific career objectives that could be met through the vocational education program, and the third response was that

approximately 50 percent of the students enrolling in area vocational school programs had career objectives, and approximately 50 percent enroll for avocational purposes.

Several counselors commented that students enrolling in the area vocational programs did not do as well in the regular school program as the average student. The counselors from cooperating schools indicated that they had good communication and rapport with the area vocational school counselors in those cases where the area vocational schools had counseling staff.

List 3 provides the general impressions of the area vocational school programs as seen by the counselors. The counselors, for the most part, were very positive about the area vocational school. They saw a need for the school and felt that it met a definite need. There were several counselors indicating that the area vocational school programs help prevent students from dropping out of school.

- Best thing that has happened to this school in many years. Has given 10th graders a chance to begin skill development. Those students turned off from school can get requirement in general education and then go into a vocational education program.
- Good, but needs "hands-on" exploratory experiences for students prior to their enrolling in a program.
- Has been very satisfactory; life-saver, keeps many students from dropping out.
- Excellent. Some courses too easy—need improvement.
- Very good; it answers the needs for a lot of schools. Very needed; although it would be nice to have control over it because of logistics.
- The quality has improved greatly. Excellent instructors. Very popular program.
- Good instructors; good program. Need to provide more slots.
- The AVS is a fine school; however, some of the teachers are oriented towards adults and thus high school students must be mature and highly motivated.
- Programs are good, but limited in number because of career center. Too many adult students who are getting grants and taking up space.
- Wasn't too sold on it at first, but think now it is a top operation. Has 50 slots but never filled them. AVS expectations are higher than some students want to put out.
- Need more feedback from AVS as to student progress. The AVS is not big enough.
- Good, but students are asked to sign an occupational commitment to attend the AVS; however, these students will not have any real interest of working in the vocation.
- Appears to be a comprehensive program; meeting the needs of the community and area it serves.
- Need to tie in support services.

List 3
Cooperating School Counselors' General
Impressions of the Area Vocational School Program

Teacher Interviews

Fifty-three teachers were interviewed during site visits. Each teacher had responsibilities for teaching at the area vocational school. The areas in which instruction was provided were: dental assistant; secretarial; auto mechanics; nursing assistant; child care; electronics; machines; carpentry; accounting; criminal justice; cosmetology; marketing and distribution; data processing; auto body; welding; special needs; appliance repair; museum service technology; small engine repair; building trades; shoe repair; barbering; refrigeration and air-conditioning; and watch, clock, and instrument repair.

The instructional assignment to the secondary, post-secondary, and adult programs varied among the institutions. There were a few instructors that taught primarily secondary students, however, most instructors had as their major responsibility the teaching of post-secondary students. This again, depended upon the type of administrative structure of the area vocational school. For the most part, independent and BOCES operated area vocational schools had instructors assigned to teach primarily secondary students, whereas, the community college type of area vocational school had the instructors primarily assigned to teach post-secondary students.

Most of the instructors felt that the secondary students were interested in their program. The teachers indicated that they had problems such as excessive absences and the lack of motivation on the part of some students. When asked to compare the secondary students to the post-secondary student, instructors generally felt that the older post-secondary students were more mature, more interested in learning the skills provided by the program, and had better attendance and performance records.

List 4 provides instructors' perceptions of the secondary student. In general, most instructors felt the secondary students were interested in their program and wanted to learn a skill. The instructors all felt that post-secondary and adult students were very interested in their classes. Many commented on the high level of maturity and motivation. Most would prefer teaching only post-secondary and adult classes if given the opportunity.

The instructors were further asked to identify the major strengths of the area vocational school program. For the most part, instructors identified the up-to-date laboratory facilities available to the students for training in the various occupations. Other comments consisted of the ability to attract well-qualified instructors and that students attracted to the program were those wanting to learn the occupation and consequently, were well motivated and well behaved. It appeared that all instructors felt positive about the area vocational school programs in which they were employed. To augment these comments, the instructors were also asked to identify major weaknesses in the area vocational school program. Comments listed were: the lack of adequate room space to accommodate all the students wishing to enroll in the programs, inadequate number of programs being offered, and inability to get and keep up-to-date equipment. Although most instructors felt their laboratories were well equipped at present, they stated their concerns about adequate funding for replacement equipment and for modernized equipment when the need arises. There was some concern stated about the turnover of the staff in that the area vocational schools do not pay competitive wages with the trades.

- For the most part, students are interested. Problems—number of absences.
- Job demand is excellent. Word of mouth from other students; success of past students.
- They have been placed in carpentry occupations in the past—follow-up. Students have a good attitude—high school counseling is good.
- Interested on the whole—self selected program from a wide range of possible courses. Interest from course to course varies according to personal ambitions.
- Really turned on. Really kept me on my toes.
- Atmosphere under which classes are offered. Secondary students mixed with post-secondary students and not identified as secondary students, pushes for more motivation.
- Secondary students are not as highly motivated as post-secondary. Disappointed in performance level.
- Very interested because secondary students are looking for an employable skill.
- Secondary students are doing just enough to get by and not really interested.
- Students like what they are doing—motivation for license atmosphere.
- About 1/3 due to atmosphere, 2/3 have specific interest in construction.
- They feel they need specific skills, job opportunities available upon graduation. Program has become quite competitive so has created demand. Easy to select motivated students.
- Fifty percent of secondary students are interested, the remainder are often directed into this program because the cooperating school does not know where to place them. Some career exploration.
- Students are interested because attendance is voluntary. They are here because they want to be.
- Had enough counseling in schools so that they know what they want. They know what they expect from other students.
- The better student is here now than before. Better screening process at local schools.
- Students are interested. Sixty percent good. Forty percent I have to push.
- Twenty-five percent are interested. Get a lot of kids that do not care.
- Program provides glamour, students treated like adults and realize competition for slots.
- Students are interested because our minority program caters to the needs of those not college preparatory.
- Greater individualization.
- Definitely interested but difficult to successfully complete because of the age group—not mature. Opportunity to get out of school.
- Most students come here from main high schools because they are interested in auto mechanics, not just to get out of class. Many of the students use these skills in farm-related occupations.
- Most of them are interested, but there are always a few that are not sure what they want to do.
- I feel the majority of the secondary students are interested in data processing classes because of the fascinating aspects of the computer itself.
- Students actually chose their program because they wanted to be here and this shows interest and most have auto body as a career objective.
- Seventy percent are interested in class because they have someone in their family in machine trades. Other thirty percent are not interested because they are in the program for credit only or were interested in other programs and got this as a second choice.
- Most students have an electronics career objective and this is why they are interested in the instruction.

List 4
Area Vocational School Instructors'
Perceptions of Student Interest

Student Interviews

As part of the site visits, 68 students were interviewed. These students were from secondary, post-secondary, and adult programs. They were enrolled in: computer science, wood processing, machine shop, shoe repair, refrigeration and air-conditioning, electronics technician, food services, agricultural, civil technology, business machine shop, nurses aide, building trades, welding, accounting, small engines, drafting, pipe fitting, appliance repair, computer operator, secretarial science, cosmetology, and dental assistants programs. Most students traveled less than 15 miles to school. There were a few students that lived away from home in order to attend school.

The major reasons why secondary students attended the area vocational school were because they wanted to learn a trade, or because of parent or counselor influence. Post-secondary students indicated the major reason why they chose that particular school was, "it was the closest school available." Others indicated that it was the only school within the area offering a specific program and a few others indicated they had attended this school as a secondary student and just continued on. The students indicated they heard about the area vocational school program primarily through the high school counselor or teacher. Some students further indicated that either parents or friends had provided them with information about the area vocational school.

Fifty of the students indicated they had not used guidance services either at the area vocational school or at their cooperating school. Those who had used guidance services appeared to have used them frequently; most to identify part-time work or to find a job.

When asked who encouraged them to enroll in the area vocational school, the majority of the students felt that it was their own choice. Table 20 provides a summary of the students' responses. Overall, the students were well satisfied with the instruction they were receiving at the area vocational school. A few that were ready for graduation were concerned about finding jobs related to their programs.

Table 20
Persons Influencing Students to Enroll
in the Area Vocational School

Number of Times Listed	Person
18	Parents/family
18	Own choice
7	Counselor
7	Teacher
3	Friends
2	School administrator
2	Referral from social agency
2	Employer

Advisory Committee

Twenty Advisory Committee members from the seven schools were contacted for their perceptions about the area vocational school. The Advisory Committee members were involved in areas such as transportation, business and office education, manufacturing, auto mechanics, electronics, members of the Chamber of Commerce, etc. It is the evaluator's judgment that most of these individuals were active in their community and held positions of responsibility within their occupations. All but one

Advisory Committee member felt that the area vocational school was doing an adequate job meeting the needs of adult education in the community. The one individual felt that there weren't enough adult courses offered by the area vocational school.

In terms of where the Advisory Committee sees the area vocational schools could improve their service to the community, it was felt that better communication lanes need to be developed with CETA and other programs utilizing the school. Further, most Advisory Committee members felt that more programs needed to be offered. Some Advisory Committee members felt there was a need to provide supplemental services and to improve fundamental skills in reading and math. Also, a few Advisory Committee members felt that the programs should be tuition free or at least a nominal fee. Approximately 50 percent of the Advisory Committee members contacted had hired graduates from the program. All of these were well satisfied with the quality of training the employee received and stated they would hire another if they had the chance.

In general, the Advisory Committee members were satisfied with the quality of programs offered at the area vocational schools.

CHAPTER 3

Summary and Conclusions

The summary and conclusions will follow the research questions generated in the first section of this study. The objectives of this study will be re-stated. Each objective in turn, will be followed by the related research questions. A summary of the findings and conclusions of each research question plus general recommendations will be provided for the reader's consideration.

OBJECTIVE 1: *TO DESCRIBE THE STRUCTURE, SERVICES, PROGRAMS, PROBLEMS, AND OTHER CHARACTERISTICS OF AREA VOCATIONAL SCHOOLS.*

The following questions were developed that reflect the intent of this objective.

(1) *What secondary schools are currently being served by each area vocational school?*

Summary. The maps included in the first portion of this study indicate the local schools being serviced by each of the designated area vocational schools in Colorado. Eighty-eight out of 175 local public schools were being served by the area vocational school system. Table 18 provides a list of schools indicating they contract with an area vocational school. Those schools currently being served by an area vocational school, for the most part, felt their district was better able to offer quality vocational education to its own students because of its association with the area vocational school. Fifty-six of the cooperating school districts responding to the questionnaire, indicated that their local districts were not meeting the vocational needs of their students. Of these 56 districts, 20 schools were associated with an area vocational school. Some of the districts cited that distance was a major problem

in using the services of the area vocational school. For the most part, the 26 schools which responded that they did not presently contract with an area vocational school and were not presently meeting the vocational education needs of their students, were in general, small rural schools. It appeared that few of these 26 schools were clustered close enough to any one location in order to receive services through an area vocational school. The location of the various school districts reporting that they were not completely meeting the vocational education needs of their students may be found on the map in Figure 24.

Conclusions. Without exception, all area vocational schools surveyed were making serious and good-faith attempts to serve secondary students in their area. However, there were a few designated area vocational schools that had a limited number of secondary students enrolled. There appeared to be a difference in commitment of the area vocational schools to the various levels of constituencies; adult, post-secondary, or secondary. Area vocational schools managed through an independent school district or BOCES seemed to have placed a higher priority on serving secondary students, where area vocational schools managed through community colleges seem to have placed a higher priority on serving post-secondary students.

In general, the area vocational schools that served the largest number of local schools were sponsored by community colleges. One reason for this was the location of the area vocational school. It also must be concluded that a large number of rural schools were not being served by area vocational schools. Major reasons for many rural schools not being served were cost and distance. Figure 24 provides the reader with a graphic presentation of the areas being served. In summary, the front

range has two area vocational schools and serves a large majority of the secondary students. Areas not served are: the far northwestern corner, southwest except for the Cortez area, southeast corner, and the east I-70 corner.

(2) *Under what type of organizational structure are the schools formed?*

Summary. There were several organizational structures observed. The most prevalent structure was the area vocational school offered through a junior community college arrangement. These colleges were either part of the state system or locally financed and controlled. Other organizational structures were jointly owned districts through a board of cooperative educational services, or an independently owned and operated area vocational school which provided services through contracting to other school districts in the surrounding area. Generally, these types of programs were offered by larger school districts and accommodated a few surrounding schools. They did not have the number of schools participating in the area vocational school as in the case of the community college programs. Most of the community college secondary programs were organized as an independent administrative unit. Administrators at the area vocational school and local school, as a rule, considered area vocational school programs to be secondary programs. In some instances, secondary and post-secondary students were mixed so that one instructor, during one class period would have both types of students. In most cases, however, the secondary courses and students were segregated from the post-secondary courses and students. Furthermore, separate instructional staff were employed.

Conclusions. The type of organizational structure appeared not to have a significant impact on the quality or amount of services offered to local school districts. It was found that a major determinant in the number of local schools participating in area vocational school programs was distance. The maps in the first portion of this study depict that the majority of local schools participating in area vocational school programs are located within a 20 mile radius of the area vocational school.

(3) How does the area vocational school deliver services to local schools?

Summary. Most area vocational schools operated through a quota system where a certain number of slots were assigned to each participating school district and it was the responsibility of that school district to fill the slots for each program. Once the school year began, any unused slots were reallocated to other shcools so that the classes would be at full enrollment. An area vocational school operated by one public district (independent area vocational school) worked on a contract basis with other school districts. The school districts would buy a certain number of student FTEs based upon their needs. In independent area vocational school systems, students were enrolled from high schools within the district on a pre-enrollment basis. The programs at the area vocational school were treated as offerings in the local high school in the enrollment process. In a BOCES operated school district, each school district involved appeared to be given a certain portion of the total student FTE in accordance to its percent of support and it was the school district's responsibility to allocate their student FTE to the various high schools within their district.

Conclusions. There are three types of delivery systems: (1) independent area vocational schools, (2) BOCES area vocational schools, and

(3) community college area vocational schools. It appeared that the enrollment by student name utilized for the most part by school districts sponsored area vocational schools created a problem of no-shows for the instructors. In many cases, the area vocational schools were unable to completely fill classes because of the discrepancies between pre-enrollment commitments and actual enrollment. On the other hand, with the community college and BOCES sponsored area vocational schools utilizing a slot allocation method, there appeared to be no problems for the area vocational schools in filling their classes.

(4) *How many schools in the vicinity of the area vocational school are not taking advantage of the program?*

Summary. In the seven site visits conducted, very few schools were found which did not participate with the area vocational school. Through the mailed survey, several other schools were identified that had previously participated in an area vocational school program, but currently were not participating. The major reason for not participating was travel time; most of these schools were 60 to 70 miles away from the area vocational school facility. In one case, the school board of the district discontinued sending students to the area vocational school because of inadequate control of students while they were going to, and coming from, the area vocational school.

Conclusions. The area vocational school is seen as a viable means for offering programs to public schools within a 20 to 30 mile radius of the area vocational school.

(5) *To what extent are Advisory Councils used?*

Summary. Each area vocational school visited had an active Advisory Council. In most cases, this Advisory Council was developed for the

secondary school programs, however in some cases, an Advisory Council for all vocational education programs (secondary, post-secondary, and adult) was utilized.

Conclusions. It was found that area vocational schools adequately use their Advisory Council for program review and improvement. Those Advisory Council members surveyed seemed knowledgeable about the area vocational programs and have hired graduates from these programs. Further, Advisory Council members reported that they felt the vocational programs at the area vocational schools were of good quality.

(6) *What types of guidance, counseling, and career development services are provided by the area vocational schools?*

Summary. In general, area vocational schools did not offer extensive guidance, counseling, or placement services to secondary students. There were some schools, however, that allocated resources to these services for secondary students. There were several area vocational schools that did not offer vocational guidance, counseling, or placement services to any of their students.

Conclusions. Guidance, counseling, and career development services appear not to be a priority for many area vocational schools.

(7) *Does the area vocational school offer instruction through satellite programs?*

Summary. At least three area vocational schools in the state were identified as having satellite programs. Only one of these schools was visited. Satellite programs appear to be a viable alternative for schools in remote rural areas. These programs can be offered to the rural school districts in a more cost effective manner than building facilities and staffing programs.

Conclusions. It is the belief of the program evaluator that satellite programs may be a viable alternative for delivering vocational education programs to those schools in remote or isolated areas that currently are not participating in programs offered by an area vocational school.

(8) *Does the secondary area vocational school have separate facilities from the sponsoring agency?*

Summary. In most cases, the secondary area vocational school did have separate facilities. In some instances, where the program was sponsored by a community college, the secondary programs were isolated physically from the post-secondary programs. Where independent school districts or BOCES sponsored the area vocational school, the school was generally separated from other high schools within the independent district or the cooperative districts, but all levels of students used one facility. This separation was such that the area vocational school had its own campus. In many of the community college programs, the facilities were shared by the secondary and post-secondary programs, however this was not always the case.

Conclusions. The separation of facilities from the sponsoring institution appears to be tied to the type of governing structure for the institution and the availability of alternative facilities for the secondary area vocational school. In the instance of community colleges where facilities already exist for post-secondary programs, separate facilities were not available. In the areas of independently sponsored or cooperative sponsored vocational education programs, separate facilities were often constructed due to the lack of adequate facilities needed for offering specific vocational programs. In one instance, the facilities were shared among a number of local school districts although a community

college managed the program. In this instance, there were tremendous logistical problems in transporting students to the various locations. Also, scheduling problems were much more severe.

(9) *To what extent are the problems at the area vocational school congruent with the supply/demand data developed by the State Occupational Information Coordinating Committee?*

Summary. In reference to information provided by the State Occupational Information Coordinating Committee supply and demand matrix, there appears to be a number of occupational programs being offered by area vocational schools where little or no demand for that particular occupation exists. Occupations such as welding, body and fender, small engine repair, and auto mechanics all show low need or a surplus of labor. However, these occupational programs are among those more utilized by the cooperating schools and most often offered by the area vocational school.

Conclusions. In some instances, area vocational schools continue offering vocational education programs in an effort to train students in various occupations that are currently over-supplied.

(10) *Is the placement rate for area vocational schools different from placement rates for other types of delivery systems?*

Summary. There was little difference between the placement rate of the area vocational school programs and the placement rates of local education agencies offering their own vocational programs.

Conclusions. The area vocational schools do not have a better placement rate than other types of delivery systems.

(11) *Are there prerequisites for entering programs at area vocational schools?*

Summary. A majority of the area vocational schools surveyed did not have prerequisites for secondary students entering their vocational

programs. Prerequisites for entering post-secondary and adult programs were minimal. However, GED or specific subject matter skills were required prior to entry into a specific associate degree program. In all cases, supplemental services were available for adults wishing to enter post-secondary programs but not meeting the specific entry requirements of a program. Programs more consistently having prerequisites were high technology and health related programs. It was found, through interviewing counselors and administrators at the cooperating schools, that cooperating schools provided a more stringent screening process for students entering into the area vocational school programs than for in-house programs. The local school, in some cases, did impose prerequisites or other requirements such as good attendance and/or an occupational intent before allowing a student to enroll in a secondary area vocational school program.

Conclusions. Prerequisites, for the most part, do not exist for students entering area vocational school programs. However, for secondary students, a screening process was often implemented by the cooperating school. In situations where certain vocational programs were popular with the students, a screening process was present as there were more students than available slots.

(12) *What input does the cooperating school have in the development of curriculum and programs at the area vocational school?*

Summary. The extent of input of cooperating schools into curriculum and programs for the area vocational school varies from one area vocational school to another. In most cases, the cooperating schools had no input into the post-secondary and adult programs and curriculum of the area vocational school. On the other hand, secondary programs and curriculum

in at least 50 percent of the area vocational schools was developed cooperatively through an administrative committee made up of principals, vocational directors, or superintendents from the cooperating schools. In some instances, periodic meetings for counselors of the area vocational school and cooperating schools were held. These meetings allowed counselors from cooperating schools to provide input into program needs. The cooperating school's administrators felt no need for them to provide input into post-secondary and adult program and curriculum considerations; further, they felt they needed to provide input into program decisions, but preferred the area vocational school to develop curriculum.

Conclusions. A majority of the cooperating schools did have input into the secondary level curriculum at the area vocational schools. Some area vocational schools do not have the mechanism to elicit formal input for curriculum development. In these cases, there appeared to be more dissatisfaction with the types and extent of program offerings.

(13) *What forms of formal coordination and communication were established between area vocational schools and cooperating schools?*

Summary. In many instances for the secondary program, the area vocational school had a program coordinator or assistant dean responsible for developing and maintaining formal and informal communications with the cooperating schools. This individual generally dealt on a daily basis with the administration of the cooperating school to provide them with information about student attendance, student performance, program changes, program scheduling, etc. Only in the case where the area vocational school was decentralized in terms of its facilities and programs did there seem to be communication problems. In these instances, comments were made from the building administrators, local directors, and counselors

of cooperating schools that indicated a lack of information or misinformation about current problems, procedures, and programs at the area vocational school.

Conclusions. Communications between the area vocational schools and the cooperating schools concerning secondary programs was found to be adequate. It appeared, however, that the more decentralized the administration for the area vocational school program, the greater the communications problem.

(14) *To what extent were job development and job placement specialists available to graduates for secondary programs?*

Summary. It appears that in those area vocational schools hiring job development specialists, the secondary students were provided with some services. However, there were several area vocational schools that did not offer job development and placement services to any of their graduates.

Conclusions. Generally, the secondary students were provided adequate services from job development and placement specialists in those instances where the area vocational school offered services. This type of service was not a high priority for most institutions.

(15) *To what extent are the program requirements for secondary schools similar to those for post-secondary students in institutions having both levels of programs?*

Summary. The program completion requirements were different between secondary and post-secondary students particularly in high technology types of offerings. In those programs that were highly regulated such as cosmetology and health programs, the requirements were essentially the same for secondary and post-secondary students. Other programs having similar requirements for secondary and post-secondary students were welding, auto body, and auto mechanics.

Conclusions. For most programs, the vocational competency requirements for secondary and post-secondary students were similar. Only in the case of high technology programs were significant differences noted.

(16) To what extent is the instructional staff the same for secondary and post-secondary programs in those institutions having both levels of instruction?

Summary. It was found through the case studies, that over 50 percent of the instructors dealt with both secondary and post-secondary students. In the case of high technology programs, there was more of a tendency to have separate instructors. There were some area vocational schools that did have separate instructional programs and faculty for secondary students. These instances were in community college settings. The faculty did not feel a separation or a combination of assignments had any effect on the quality of instruction provided the students.

Conclusions. There was a mixture of staff assignment within most area vocational schools. Staff, for the most part, taught secondary, post-secondary, and adult students. There were specific instances where this was not the case. It is felt that a diverse staff assignment does not necessarily indicate or have impact upon the quality of vocational education programs in general.

(17) What is the area vocational school's responsibility for monitoring student attendance?

Summary. All area vocational schools took full responsibility for monitoring and reporting student attendance to the cooperating schools. There were several area vocational schools that did not have an explicit attendance policy for secondary students. It was the feeling of the administrators of the area vocational school that the attendance policies of each cooperating school should be enforced for their particular

student. It was felt by the administrators that it was their responsibility to report student attendance and it was the cooperating school's responsibility to enforce its own attendance policies. It was found, however, that if a student was in poor attendance, most area vocational schools took steps to drop the student from the program. Post-secondary attendance requirements varied greatly among the schools and were more lenient than secondary attendance policies.

Conclusions. Attendance requirements were in effect in all area vocational schools visited. There was a difference, however, in how these requirements were manifested and who was responsible for enforcing the requirements.

(18) Are secondary students and post-secondary students co-mingled within the institution?

Summary. There were a few instances where secondary and post-secondary students attended the same classes at the same time. In general, secondary students were kept separate from post-secondary students for instructional purposes. In those instances where they were co-mingled, instructors seemed to indicate that a long as post-secondary students were a majority there appeared to be no problem.

Conclusions. For the most part, it seems best to have secondary students separate from post-secondary students for instructional purposes. If a mixture of students is necessary, it is recommended that no more than 40 percent of the students be secondary students.

(19) At what time are secondary programs offered?

Summary. The majority of secondary programs were offered in the morning and afternoon sessions. There were instances, where either the morning or afternoons were allocated exclusively to secondary students

and the post-secondary students had the other portion of the day. There were some area vocational schools that did offer evening programs to their secondary students.

Conclusions. For the most part, area vocational schools offered programs to their secondary constituents throughout the school day. In those instances where only morning or afternoon slots were assigned, there appeared to be some scheduling problems created for the cooperating schools.

(20) *What is the cost per student for various programs at the area vocational school versus those for the state average and other types of delivery systems?*

Summary. In reviewing the cost data, it was found that the cost of operating area vocational school programs compared favorably with those of large school districts and was below the state average in all cases reviewed. When comparing the cost of operating vocational programs at the area vocational school to that of the small school districts, the area vocational school program was much more cost effective.

Conclusions. The programs offered through an area vocational school delivery system can increase cost effectiveness for small rural schools. Satellite programs also appear to offer some cost advantages.

(21) *How much travel time do students need in order to participate in the area vocational school?*

Summary. Travel time in general, ranged between 30 and 45 minutes each way for students participating in the area vocational schools. The cooperating school, as a rule, was responsible for transportation of students to and from the area vocational school. In some instances, the area vocational school took the responsibility for transportation, and in a few instances local school districts required the students participating

in the area vocational school to provide their own transportation. In those instances where travel time exceeded an hour (one class period) the number of students participating in the vocational education program diminished drastically. The administrators of the cooperating schools did express concerns about travel time and transportation costs in participating with the area vocational schools. They conceded that if the price of fuel continues to rise, the cost factor for transportation will have to be considered when looking at the overall cost for delivering vocational education programs.

Conclusions. The majority of the students were not adversely affected by travel time. In some instances, however, travel time did become a factor particularly in the cooperating schools that operated on a six-period day where two periods of that day were consumed in travel. This made it difficult for those students participating in the area vocational school programs to meet the overall graduation requirements at the local school. Further, travel costs were seen as a factor by the cooperating school administrator in the overall cost of offering vocational education programs to their students. Area vocational schools cannot effectively serve schools where travel time exceeds 45 to 50 minutes one way, without providing off-campus delivery of its programs through satellites.

OBJECTIVE 2: TO DESCRIBE THE IMPACT OF SERVICE TO STUDENTS.

The following questions were developed to reflect the intent of this objective.

(1) To what extent do students continue their program at the area vocational school?

Summary. The completion rate of students at area vocational schools appeared to be slightly higher than those for the state average. This was in part due to the more rigid selection requirement utilized for initially placing students in the area vocational school program.

Conclusions. It is the feeling of the evaluator that the more specific screening and placement processes utilized by the cooperating schools for assigning students to area vocational school programs have positively affected the completion rate for area vocational schools.

(2) *What are the major reasons why students do not continue their programs?*

Summary. It was found that the major reason for students not continuing their program was that they dropped out of school. These students appeared to have been discontent, not only with the vocational education program, but also with school in general.

Conclusions. In order to increase the completion rate of the vocational education programs, extensive efforts must be undertaken for dropout prevention. Some recommendations are offered in the "Survey of Non-Completers and No-Shows of Vocational Programs in Colorado" published by the State Board for Community Colleges and Occupational Education.

(3) *What percent of students are placed in jobs related to their training upon graduation?*

Summary. The discrepancy matrices indicate that the placement rate varies drastically among programs and schools within planning regions.

Conclusions. A generalization cannot be made pertaining to the factors affecting overall placement rate. It does appear, however, that the placement rate for area vocational school programs is slightly higher than that for the state average.

(4) *Are there greater numbers of students enrolled from schools closer to the area vocational school than from schools on the perimeter of the area vocational schools service area?*

Summary. There appears not to be much discrimination among schools by distance for those districts within 20 to 30 miles of the area vocational school. However, school districts outside of the 30 mile perimeter from the area vocational school do not utilize the area vocational school programs to the extent that those schools closer utilize the programs.

Conclusions. Distance does affect the extent of involvement of cooperating schools with the area vocational school service area. This is a factor of time in that if it takes more than one class period to transport students from the cooperating school to the area vocational school, therefore, the cooperating school is less likely to send students. Students missing three or more periods for travel out of a six or seven period day would have trouble meeting graduation requirements.

(5) *To what extent do students perceive they receive quality instruction?*

Summary. The data indicated that students were pleased with the quality of their instruction. They felt that the instructors knew their subject matter and that, for the most part, the program was presented in such a manner that they could learn the needed skills for the occupation.

Conclusions. Quality instruction does take place within the area vocational school as evaluated by the students.

(6) *What are the major reasons students enroll in area vocational schools?*

Summary. The two most often cited reasons for enrollment in the area vocational school programs were, "I wanted to see what the program was like," and "I was interested in pursuing a career in this area."

Conclusions. There appears to be some need for career advisement prior to the students entering a vocational education program, in that, a large number of students entering a vocational education program

were doing so to explore career alternatives. There were several area vocational schools that did offer a skill center or exploration kind of experience where students could sample a variety of programs before making a choice. This strategy proved to be somewhat effective in eliminating the number of students taking a particular program to explore its possibilities for a career.

(7) *Was there a difference in the perceptions of the area vocational school administrators and cooperating school administrators in how effectively the area vocational school was meeting the needs of their secondary students?*

Summary. The data indicated that there was close agreement on most problems, issues, and program quality indicators between cooperating school administrators and area vocational school administrators.

Conclusions. Area vocational school administrators and cooperating school administrators appeared to have the same perceptions about the quality of vocational education offered, and the problems and concerns for operating the area vocational school.

OBJECTIVE 3: TO DESCRIBE THE LOCAL SCHOOL ADMINISTRATORS' PERCEPTIONS OF THE AREA VOCATIONAL SCHOOL.

The following questions were developed that reflect the intent of the above objective:

(1) *How was the cooperating school district currently meeting the vocational education needs of their students?*

Summary. Most cooperating schools augmented the area vocational school offerings with in-school offerings. The vocational programs offered at the local level are often considered part of the school's traditional curriculum. Business and office education and production agriculture are examples of such programs. Most administrators in cooperating school districts felt, with the assistance of the area vocational

school, they were meeting the vocational needs of their students. In a few cases, the administrators did express that further programs were needed at the area vocational school in specific skill areas. A large number of cooperating school administrators reported that they could use more slots in certain programs such as auto mechanics, auto body, cosmetology, etc. (high student demand programs). Many of these programs have low employment demand.

Conclusions. Administrators of schools cooperating with area vocational schools felt the vocational education needs of their students were being met.

(2) *How does the cooperating school administration perceive the function of the area vocational school in addressing program needs for their school district?*

Summary. The common views of cooperating school administrators reflect a satisfaction concerning the area vocational school's ability to meet their local school districts' needs. There were instances where administrators expressed a desire to have additional vocational programs added to the area vocational school curriculum. The programs they recommended to be added were often high cost programs.

Conclusions. By and large, cooperating school administrators were satisfied with the program offerings of the area vocational schools and the area vocational schools' responsiveness to the needs of the local school districts.

(3) *What do the local adminis rators think were the major strengths and weaknesses of the area vocational schools?*

Summary. The major strengths and weaknesses reported by the cooperating school administrators were: Strengths--offering of a larger selection of vocational education programs to their students, more cost effective program delivery services for many vocational education programs,

and quality instructors. Weaknesses--increased problems in scheduling of classes, conflicts with students participation in extracurricular activities, vacations, transportation, and difficulty of meeting graduation requirements.

Conclusions. For the most part, the strengths were benefits to students and the weaknesses were administrative problems.

(4) *To what extent was there cooperation between the cooperating schools and the area vocational schools?*

Summary. Through interviews and surveys, it was determined that close cooperation existed between area vocational schools and cooperating school administrators and counselors. There were instances where this cooperation was not as apparent, but in general, it was found that strong cooperation did exist.

Conclusions. In order to have an effective area vocational school delivery system at the secondary level, strong fornal communication channels need to be developed that allow local administrators to contact decision-makers at the area vocational school. Further, communication channels among cooperating school counselors and the area vocational school counselors is mandatory in order to improve the student selection process. Program completion rate can be tied to the effectiveness of the cooperating school counseling and selection process.

(5) *To what extent is the cooperating school involved in curriculum development and program improvement activities at the area vocational school?*

Summary. It was found that there was limited input from cooperating schools in terms of curriculum development and program approval activities. The cooperating schools did have input into the types of programs offered. Once this decision was made, the curriculum was developed and the program evaluation was done primarily by the area vocational school faculty and administration.

Conclusions. Curriculum and instructional activities are, for the most part, the prerogative of the area vocational school. The local school districts did not seem to feel they needed to be involved in the specifics of developing curriculum or evaluating the programs.

CHAPTER 4

Recommendations

In light of the summary and conclusions provided in this section, the following recommendations are offered to the State Board for Community Colleges and Occupational Education and administrators or policymakers of area vocational schools and cooperating schools.

It is recommended:

(1) That specific selection procedures be developed for each program area so that guidance counselors from cooperating schools can initiate a selection process which will allow the most qualified and interested students to benefit from the area vocational school programs.

(2) That added area vocational schools be considered only if three to five high schools, having a total secondary enrollment of 1500 or more students, are situated within a 20 mile radius of a common point. This would mean an area vocational school could offer six or more programs if approximately 10 percent of the secondary students would enroll in the programs.

(3) That area vocational schools institute a satellite concept for those school districts outside a 30 mile radius from their campus.

(4) That the area vocational schools that are intended to emphasize the programs for secondary students be offered through an independent school district or a BOCES school district.

(5) That area vocational schools that want a major emphasis in post-secondary and adult programs be organized through an existing or new community or junior college.

(6) That the State Board needs to suggest policies dealing with attendance, transportation, and scheduling that will enable the area

vocational schools to more effectively address these problem areas.

(7) That the counselor(s) in each cooperating school involved with an area vocational school be provided with formal training in the area of career and vocational counseling.

(8) That the State Board for Community Colleges and Occupational Education guidance supervisor provide in-services for counselors supplying services to students attending area vocational school programs.

(9) That certain programs within each planning region need to be reviewed in terms of their overall effectiveness in providing jobs for the graduates.

(10) That the State Board review this type of program and cut back those programs not supplying graduates to the labor market. Criterion for such decisions can be the percent of placement for graduates from that program. In the areas of auto mechanics, auto body, and welding there is an over-supply of graduates.

(11) That the State Board for Community Colleges and Occupational Education should increase the emphasis of short-term adult programs. The community colleges offering such programs were more interested in these types of programs when they were FTE generating.

(12) That funding for short-term adult programs is not adequate in itself and the State Board needs to review the process for initiating and funding short-term adult programs so as to meet the adult education needs.

(13) That there are a few designated area vocational schools not serving a total continuum of secondary, post-secondary, and adult students. It is recommended that the State Board for Community Colleges and Occupational Education review the definition of area vocational schools and eliminate the area vocational school designation of those institutions that do not meet the criterion.

(14) That in-services be provided to all administrators and counselors throughout the state dealing with the definition and functions of area vocational schools. It was obvious that many individual administrators viewed area vocational schools as only secondary programs.

(15) That specific feasibility studies be conducted in the east, central, and southeastern section of the state in order to identify the extent of interest of school districts in developing cooperative efforts to meet their students' vocational education needs.

(16) That a concept of an area local director be explored. This individual could be responsible for vocational education programs for several small rural schools, working to coordinate the types of programs offered, so that through contract or cooperative agreement each school could take advantage of all vocational education programs offered in the area. This type of administrative arrangement might be patterned after the Arapahoe Douglas system. One must keep in mind that the major problem identified for a decentralized system is the maintenance of good communication among the participating schools.

In general, the research established that the area vocational schools are an effective force in delivering quality vocational education to secondary, post-secondary, and in some cases, adult students in the state of Colorado. The major weakness in the delivery system was the extent the adult population has been served through the area vocational schools. It appears this weakness is caused by the funding formulas utilized for vocational and community college programs. The data indicated there were a large number of small rural school districts not presently being served through area vocational schools or satellite programs. These districts were, for the most part, rather large in area,

had small student enrollments, and, in some cases, were isolated by geographical barriers such as mountain ranges, rivers, or canyons. In order to improve vocational education in these areas, it is seen that area vocational schools must opt for satellite programs in rural areas, or that the State Board for Community Colleges and Occupational Education initiate a concept of cooperative programming by sponsoring an "area local director" who will serve several small schools.

A priority ingredient of the area vocational school structure is providing local school districts with quality, cost effective vocational education programs. Research, using case study and survey techniques, reveals that, currently the area vocational school delivery system serves only part of the rural schools in Colorado. The data discloses that a large number of rural schools are presently not served by the area vocational school or other types of cooperative ventures. It is recommended that additional strategies need to be developed in order to more completely serve the vocational education needs of secondary students in rural Colorado.

The geographic isolation of many school districts due to mountain ranges and large expanses of farm and range land present unique problems for Colorado vocational educators and administrators. The traditional area vocational school concept does not seem to be the complete answer in solving the problems of serving these isolated schools. However, the area vocational schools appear to be very effective within a 20 to 30 mile range of the area vocational school facility.

In some instances where large enough clusters of students can be gathered, satellite programs appear to be an appropriate response to the local schools' needs. However, there are many districts in Colorado that are isolated from the surrounding districts and cooperative arrangements

appear minimal because of transportation difficulties. If expanded vocational education offerings are to be provided to students within these districts, concepts such as itinerant programs must be implemented. These would be programs that may be delivered for one or two years in a particular school district for anyone interested and then transported to another school district for one or two years. Also, multi-occupational cooperative education programs that utilize the facilities of the community for vocational training could be implemented. (This strategy requires the development of related instructional material. This particular area has been a weakness of multi-occupational programs in that one instructor has not been able to provide related instruction in the diverse occupational fields served by the program. Extensive curriculum development would have to be supported through the State Board for Community Colleges and Occupational Education and in-service, pre-service training be provided to coordinators of these programs.)

The rural schools themselves need to provide input into what they consider to be the best strategy for offering vocational education to their students. Each school district will undoubtedly have unique constraints and problems. The planning staff for each planning region needs to identify those problems and help the districts develop strategies for overcoming them. The recommendation is for the State Board to take a pro-active role in developing vocational education programs in rural districts.

APPENDIX A

193

Individuals selected to serve in an advisory capacity to this study were:

Dr. Stan Lancaster
Boulder Valley Vocational School
6600 Arapahoe
Boulder, Colorado 80302

Mr. Thomas McCauley
Director of Vocational Education
Burlington School District
380 South 18th
Burlington, Colorado 80807

Mr. Rex Davis
Platte Valley School
Kersey, Colorado 80644

Mr. Jim Roorda
State Board for Community Colleges
and Occupational Education
Centennial Building
2nd Floor
1313 Sherman
Denver, Colorado

Mr. Lelyn Brian
Superintendent
Ault - Highland School District
P.O. Box 68
Ault, Colorado 80670

Dr. Bill Carder
Director of Curriculum
Aurora Public Schools
1085 Peoria Street
Aurora, Colorado 80011

Mr. Eric Johnson
Vice President
Colorado Mountain College
P.O. Box 9010
Steamboat Springs, Colorado 80477

APPENDIX B

Center
for
Education & Management

25455 Weld Rd. 50
Kersey, Colorado 80644
(303) 284-6274

Dear Student:

The state of Colorado is looking into the benefit of vocational education for students. It has been brought to our attention that you were enrolled in a vocational education program your Junior year and dropped out of that program. (If you do not recall the program, it is listed on the front of the envelope for your convenience.) It would be helpful to us to identify the reasons why you enrolled in the program initially and the reasons why you dropped out of the program.

Please complete the enclosed questionnaire and mail it to us in the self-addressed, stamped envelope. This information will be used to better serve students. Any additional information or comments are welcome.

Sincerely,

Kendrick L. Spooner, Ph.D.
President

KLS: es
Enclosure

196

STUDENT SURVEY

DIRECTIONS: Would you please respond to the following questions and return the survey form?

1. School District _____

2. Name of program not completed _____

3. Race/Ethnic Identification (optional)

___ American Indian or Alaskan Native
___ Asian or Pacific Islander
___ Black
___ Hispanic
___ White
___ Non-resident Alien

4. Sex: (optional)

___ Male
___ Female

5. Does your school have career education?

___ Yes
___ No
___ Don't Know

If yes: a) were you able to participate in career education activities? ___yes ___no

b) which activities did you experience?

___job interview
___developed a career plan
___visited business in the community
___used a career information system
___practiced some job skills
___read about or researched various jobs
___took an occupational interest test
___attended a career day
___others _____ (specify)

6. Where was your vocational education program offered?

___ Local high school
___ Neighboring high school
___ Area vocational school
___ Community college

7. Do you know what career or occupation you want to pursue after high school? ___yes ___no

If yes, specify: _____

8. Will you be able to enter this occupation immediately upon graduation from high school? ___yes ___ no

9. Were you aware of the working conditions of the jobs served by the vocational education program you took?

___yes ___no

10. Listed below are reasons why students take vocational education programs. Which of these are your reasons? (Check one for each answer.)

Reasons for Taking Vocational Education Programs	No (Not A Reason) 1	Yes (A Reason) 2	Not Sure 3
Program fit my career choice	____	____	____
Parents wanted me to	____	____	____
Was the only course available	____	____	____
Liked the instructor	____	____	____
My friends were taking the course	____	____	____
It appeared to be an easy course	____	____	____
Guidance counselor told me to	____	____	____
I wanted to use the skills learned in the course for a hobby	____	____	____
I wanted to see if I liked the occupation	____	____	____
Other: _____ (specify)	____	____	____

11. Did you take an Industrial Arts/Technical Arts course prior to enrolling in a vocational education program?

___yes ___no

12. Listed below are reasons why a student might register for a vocational program but fail to show or complete the program. Which of these were your reasons for not completing the vocational program? (Check one for each answer.)

Reasons for Not Completing A Vocational Program	No (Not A Reason) 1	Yes (A Reason) 2	Not Sure 3
ACADEMIC			
Poor grades in most subjects	____	____	____
Did not have the required skill in the areas of reading and math	____	____	____
Found I didn't like doing most of the activities required by the program	____	____	____
Had to finish general education and graduation requirements before taking VE program	____	____	____
Conflict with the instructor	____	____	____
Transfered to another school in the district	____	____	____
Scheduling conflict	____	____	____
Irregular attendance - too many absences	____	____	____
Discouragement with school	____	____	____

Reasons for Not Completing A Vocational Program	No (Not A Reason)	Yes (A Reason)	Not Sure
	1	2	3
ACADEMIC			
Grades first year/semester too low to continue	____	____	____
Unable to get VE program of choice	____	____	____
Had to spend too much time on bus, coming and going, to take required courses and VE course	____	____	____
VE program wasn't what I expected	____	____	____
EMPLOYMENT			
Scheduling conflict between job and studies	____	____	____
Accepted a job	____	____	____
Needed a job to continue school	____	____	____
Entered military service	____	____	____
Other _____ (specify)	____	____	____
FINANCIAL			
Lacked money to continue school	____	____	____
Transportation to the vocational school was unavailable	____	____	____
Needed to help support family	____	____	____
Other _____ (specify)	____	____	____
PERSONAL CIRCUMSTANCES			
Vocational education program was too time-consuming	____	____	____
Home responsibilities too great	____	____	____
Vocational program interfered with athletics, band, etc.	____	____	____
Moved out of the school district	____	____	____
Health reasons	____	____	____
Illness or death in the family	____	____	____
Quit school	____	____	____
Could not arrange for childcare	____	____	____
I was treated unfairly	____	____	____
I did not get along with the other students in the vocational education program	____	____	____
My friends were taking another program	____	____	____
I changed to another vocational education program	____	____	____

What program did you change to? _____

Did you finish that program? ___yes ___no

SURVEY OF THE IMPACT OF THE AREA VOCATIONAL DELIVERY SYSTEM
(COOPERATING SCHOOLS)

District _____

School _____

Person(s) completing questionnaire _____

Title(s) _____

Which of the following methods are used to provide vocational training in your area? (check all that apply)

___ High school vocational program

___ Contract agreement with area vocational school

___ Joint agreement with other high school

___ Joint agreement with community/junior college

___ Contract with private schools

___ Other (specify) _____

_____

___ Not sure

IF YOU DO NOT USE AN AREA VOCATIONAL SCHOOL, SKIP TO PAGE 4

At what grade level are students enrolled in AVS programs? (check all that apply)

___9th ___10th ___11th ___12th

What vocational education programs are provided to you by area vocational schools?

Program	AVS or School Name	Do You Presently Participate?

If you provide some program locally and contract for others, what is the rationale for deciding on which program to offer locally?

_____

_____

_____

_____

_____

200

How many miles are you from the nearest area vocational school?_____

How many miles are you from the area vocational school you contract with?_____

What is the average travel time for students attending programs at area vocational schools?_____

Can students or constituents from your district enroll in adult programs:

offered by the local school? __yes __no offered by the AVS? __yes __no

Has the area vocational school offered any extension or satellite programs in your area in the past year?

If yes, which programs and what are your feelings about the programs?

_____

_____

_____

_____

_____

Please respond to the following statements by marking the response that best describes what is actually happening at your school.

Strongly Agree			Strongly Disagree	
SA	A	D	SD	Efforts are made to coordinate course content between cooperating schools and AVS.
SA	A	D	SD	Most basic math and communications skills required by students entering occupational programs have been adequately covered in our school.
SA	A	D	SD	Close cooperation exists between AVS and cooperating schools.
SA	A	D	SD	Students have an adequate choice of vocational programs.
SA	A	D	SD	Scheduling is a major problem in providing vocational programs to students.
SA	A	D	SD	Counselors recommend vocational courses to interested students of all ability levels.
SA	A	D	SD	Our school staff is involved in planning programs for the AVS.
SA	A	D	SD	Progress of students attending AVS programs is regularly reported to the local school.
SA	A	D	SD	Attendance monitoring is a major problem with students enrolled in AVS programs.
SA	A	D	SD	Travel time is a major problem in arranging for students to attend AVS programs.
SA	A	D	SD	The AVS delivery system is currently meeting our needs.
SA	A	D	SD	Our district is well-informed of the program offerings at the AVS.
SA	A	D	SD	Members of our staff are actively involved in curriculum development and evaluation for AVS programs.

Who is responsible for providing transportation for students enrolled in AVS programs?

___ student ___local school ___ AVS ___ other (specify)_____

What do you see as major strengths of the current AVS delivery system?

_____

_____

_____

_____

_____

_____

What are the major weaknesses in the current AVS delivery system?

_____

_____

_____

_____

_____

_____

What could be done to improve the current AVS delivery system?

_____

_____

_____

_____

_____

_____

In your opinion, what are the major reasons students enroll in vocational education programs?

_____

_____

_____

For those students who do not complete a vocational education program, what do you believe are the major reasons for their dropping out of it?

_____

_____

_____

Do you feel the adult vocational education training needs are currently being met for your community?

_____

_____

_____

Do you feel your district is offering an adequate number of vocational education programs? _____

If not, what alternatives have you looked at?

_____

_____

_____

_____

_____

Have you been involved with the AVS in your area? (Name School) _____

If yes, ask:

When and to what extent? _____

_____

_____

_____

And why did you stop using the AVS? _____

_____

_____

_____

If no, ask:

Why? _____

_____

_____

_____

Counselor - Cooperating School

Name_____

School_____

Approximately how many students are currently enrolled in vocational education programs (excluding Consumer Home Economics):

In your own school? _____

In AVS programs? _____

How are students selected for vocational education programs:

In your own school? _____

_____

_____

_____

In area vocational schools? _____

_____

_____

_____

Do students receive any career education experience prior to enrolling in a vocational education program? If yes, describe: (grade level, community-based, content, objectives, etc.)

_____

_____

_____

_____

Are students provided with any testing services to provide information pertaining to interest, aptitudes, and abilities? If yes, describe:

_____

_____

_____

_____

_____

_____

Could you describe the types of students enrolled in vocational education programs. Are the students enrolled in AVS programs different? If yes, in what way?

Do you have any communication with counselors or job development specialists at the AVS? If yes, describe:

What is your general impression of the AVS programs?

What do you feel are the major reasons why students enroll in vocational education programs?

What do you feel are the major reasons why students do not complete a vocational education program once they start it?

How are students recruited for the AVS vocational program?

Impact of AVS Survey

AVS Teacher On-site Interviews

Name_____

School_____

Subject area_____

What portion of your time is spent teaching:

_____secondary students _____postsecondary students

_____adult students

Do you feel the secondary students are interested in your classes? Why or why not?

_____

_____

_____

_____

_____

Do you feel postsecondary and adult students are interested in your classes? Why or why not?

_____

_____

_____

_____

_____

What are the major strengths and weaknesses in the secondary program?

_____

_____

_____

_____

_____

_____

_____

_____

Do you feel we are meeting the vocational education needs of the secondary student in this area? Why or why not?

What are the major strengths and weaknesses in the postsecondary program?

Do you feel we are meeting the needs of postsecondary students in the school service area? Why or why not?

What are the major strengths and weaknesses in the adult program?

Do you think we are meeting the needs of adult students in the school service area? Why or why not?

Administrator Interview

Survey of Directors of Area Vocational Schools
On Impact of the Delivery System
(AVS)

School _____

Person(s) completing questionnaire _____

Title(s) _____

Which statement best describes your governance structure?

_____ Local school district

_____ State system community college

_____ Local district community college

_____ BOCS

_____ Other _____
specify

How do you determine the number of students accepted from each cooperating school?

_____

_____

_____

What percentage of your vocational enrollment is:

____% secondary ____% postsecondary ____% adult

List the secondary school districts to which you have provided contracted services this year (please include your own).

School District	Approximate Number of Students Served

Is the instructional staff the same for the secondary, postsecondary, and adult program? ___yes ___no Comments:

_____

_____

_____

_____

At what time of day are: (check all that apply)

	Morning	Afternoon	Evening
secondary students enrolled	_____	_____	_____
postsecondary students enrolled	_____	_____	_____
adult programs offered	_____	_____	_____

In what ways are the cooperating local schools involved in developing programs?

Secondary: _____

_____

_____

Postsecondary: _____

_____

_____

Adult: _____

_____

_____

In what ways are the cooperating local schools involved in evaluating programs?

Secondary: _____

_____

_____

Postsecondary: _____

_____

_____

Adult: _____

_____

_____

What has been the major problem in providing vocational programs to schools in your service area?

_____

_____

_____

_____

_____

What has been the major problem in providing vocational programs for postsecondary and adult students?

_____

_____

_____

_____

_____

What do you see as the major strengths and weaknesses of the area vocational school program?

	Strengths	Weaknesses
Secondary:		
	_____	_____
	_____	_____
	_____	_____
	_____	_____
Postsecondary:		
	_____	_____
	_____	_____
	_____	_____
	_____	_____
Adult:		
	_____	_____
	_____	_____
	_____	_____
	_____	_____

Please respond to the following statements by marking the response that best describes what is happening in your school.

Strongly Agree			Strongly Disagree	
SA	A	D	SD	Efforts are made to coordinate course content between cooperating schools and AVS.
SA	A	D	SD	Most math and communications skills required by students entering occupational programs have been adequately covered in feeder schools.
SA	A	D	SD	Close cooperation exists between AVS and cooperating schools.
SA	A	D	SD	Counselors recommend vocational courses to interested students of all ability levels.
SA	A	D	SD	Students have an adequate choice of vocational programs.
SA	A	D	SD	Scheduling is a major problem in providing vocational programs to students.
SA	A	D	SD	The cooperating schools are involved in planning programs for the AVS.
SA	A	D	SD	Progress of students attending AVS programs is regularly reported to the local school.
SA	A	D	SD	Attendance monitoring is a major problem with students enrolled in AVS programs.
SA	A	D	SD	Travel time is a major problem in arranging for students to attend AVS programs.

What are the major formal channels for communication between the AVS and cooperating schools?

_____

_____

_____

_____

To what extent are job development and placement specialists made available to:

	None		Some		A lot
secondary students	1	2	3	4	5
postsecondary students	1	2	3	4	5
adult students	1	2	3	4	5

What are your attendance policies for:

Secondary: _____

_____

_____

Postsecondary: _____

_____

_____

Adult: _____

_____

_____

What is done to aid students who are failing?

Secondary: _____

_____

_____

Postsecondary: _____

_____

_____

Adult: _____

_____

_____

In what ways do you report secondary student progress to the administration of the cooperating school?

_____

_____

_____

_____

_____

Approximately what percent of your enrollment commutes:

	0-10 Miles from Campus	11-20 Miles from Campus	21-30 Miles from Campus	31-40 Miles from Campus	41 or more Miles from Campus
secondary	_____	_____	_____	_____	_____
postsecondary	_____	_____	_____	_____	_____
adult	_____	_____	_____	_____	_____

How have you identified the needs for adult vocational education programs?

In your opinion, what are the major reasons for a student enrolling in a vocational education program?

What do you feel the major reasons are for students not completing a vocational education program once they have started it?

List the off-campus courses offered this year (include satellite programs).

Impact of AVS Survey

Students' On-site Interviews

Name_____

Miles traveled to school_____

Level: ___Secondary ___Postsecondary ___Adult

What is your program major?_____

Why did you choose this area?_____

_____

_____

Why did you choose this school?_____

_____

_____

Have you used the guidance or job development services?_____

If yes, describe:_____

_____

_____

_____

How did you find out about the AVS program?_____

_____

_____

_____

Did anyone encourage you to enroll in the AVS program?_____

_____

_____

_____

Advisory Council Member and Community Person

Interview Form

Name _____

School _____

Position _____

Do you feel (name of school) is meeting the adult education needs of this community? _____

Why or why not? _____

_____

_____

_____

_____

Are there things the (name of school) could do to improve its service to the community? _____

If yes, what? _____

_____

_____

_____

Have you hired graduates from (name of school) vocational programs?

If yes, were they well trained? _____

Would you hire another? _____

Impact of AVS Survey

AVS Counselor On-site Questionnaire

Name_____

School_____

What services do you provide to:

Secondary students_____

_____

_____

Postsecondary students_____

_____

_____

Adult students_____

_____

_____

To what extent are students outside a twenty mile radius served by the school? [Try to get data to show the service area for the institution.]

For: 1) Secondary:_____

_____

2) Postsecondary: _____

_____

3) Adult:_____

_____

What are the strengths and weaknesses of the vocational education program?

	Strengths	Weaknesses
Secondary:		

Strengths	Weaknesses
Postsecondary:	
Adult:	

How are students recruited from feeder schools?

What types of students enroll in vocational education programs?

What types of career education experiences does the AVS provide students?

Survey of the Impact of the Area Vocational School Delivery System

School _____

Person(s) completing questionnaire _____

Title(s) _____

Which statement best describes your governance structure?

___ Local school district

___ State system community college

___ Local district community college

___ BOCS

___ Other _____
specify

How do you determine the number of students accepted from each cooperating school?

_____

_____

_____

What percentage of your vocational enrollment is:

___% secondary ___% postsecondary ___% adult

At what time of day are: (check all that apply)

	Morning	Afternoon	Evening
secondary students enrolled	_____	_____	_____
postsecondary students enrolled	_____	_____	_____
adult programs offered	_____	_____	_____

What has been the major problem in providing vocational programs to cooperating schools?

_____

_____

_____

_____

_____

_____

What do you see as the major strengths and weaknesses in offering vocational programs at the:

	Strengths	Weaknesses
Secondary level:		
	_____	_____
	_____	_____
	_____	_____
	_____	_____
Postsecondary level:		
	_____	_____
	_____	_____
	_____	_____
	_____	_____
Adult level:		
	_____	_____
	_____	_____
	_____	_____
	_____	_____

What has been the major problem in providing vocational programs for postsecondary and adult students?

_____

_____

_____

_____

_____

Please respond to the following statements by marking the response that best describes what is actually happening at your AVS.

Strongly Agree			Strongly Disagree	
SA	A	D	SD	Efforts are made to coordinate course content between cooperating schools and AVS.
SA	A	D	SD	Most basic math and communications skills required by students entering occupational programs have been adequately covered in feeder schools. (cooperating schools)

220

Strongly Agree			Strongly Disagree	
SA	A	D	SD	Close cooperation exists between AVS and cooperating schools.
SA	A	D	SD	Counselors recommend vocational courses to interested students of all ability levels.
SA	A	D	SD	Students have an adequate choice of vocational programs.
SA	A	D	SD	Scheduling is a major problem in providing vocational programs to students.
SA	A	D	SD	Cooperating schools are involved in planning program for the AVS.
SA	A	D	SD	Progress of students attending AVS programs is regularly reported to the local school.
SA	A	D	SD	Attendance monitoring is a major problem with students enrolled in AVS programs.
SA	A	D	SD	Travel time is a major problem in arranging for students to attend AVS programs.

What are the major formal channels for communication between the AVS and cooperating schools?

_____

_____

_____

_____

_____

To what extent are job development and placement specialists made available to:

	None		Some		A lot
secondary students	1	2	3	4	5
postsecondary students	1	2	3	4	5
adult students	1	2	3	4	5

What is done to aid students who are failing?

Secondary: _____

_____

_____

Postsecondary: _____

_____

_____

Adult: _____

_____

_____

In what ways do you report secondary student progress to the administration of the cooperating school?

_____

_____

_____

_____

_____

In your opinion, what are the major reasons for a student enrolling in a vocational education program?

_____

_____

_____

_____

_____

What do you feel the major reasons are for students not completing a vocational education program once they have started it?

_____

_____

_____

_____

_____

How have you identified the needs for adult vocational education programs?

List the off-campus courses offered this year (include satellite programs).

List the secondary school districts to which you have provided contracted services this year (please include your own).

School District	Approximate Number of Students Served

APPENDIX C

224

Summary of Survey Results for
Area Vocational School Administrators

(1) How do you determine the number of students accepted from each school?

A variety of answers were provided by administrators at area vocational schools when asked how the number of students accepted to the area vocational school was established. Some administrators indicated that slots were allocated to school districts based upon their total enrollment; a first-come, first-serve basis was mentioned as well. Some administrators indicated that this was no problem as they could accept as many students as wanted the program.

(2) What has been the major problem in providing vocational programs to cooperating schools?

Scheduling conflicts and distance traveled to the area vocational school were the most frequent answers given as to the major problems in providing vocational education programs in a service area. Other problems mentioned by area vocational school administrators were: lack of funding, lack of communication, and cooperating schools operated their own program.

(3) Is the instructional staff the same for the secondary, post-secondary, and adult programs?

Answers to this question varied depending on whether the area vocational school was a stand-alone or designated. A number of the post-secondary school administrators specified that part-time faculty were employed to teach adult and post-secondary only. There was no established pattern on this question. There were variations from school to school.

(4) In what ways are the cooperating local schools involved in developing programs?

A majority of administrators pointed out that periodic meetings (annual or semi-annual) were held between area vocational schools and the cooperating school so that input could be provided by the cooperating school. Also, frequent mention was made that input was provided by district advisory councils. Other methods included interest surveys carried out in local districts.

(5) In what ways are the cooperating and local schools involved in evaluation programs?

Nearly all respondents cited that there was not a formal evaluation process. However, feedback from administrators, counselors, students, and faculty provided the basis for evaluation. One administrator included evaluations by advisory councils.

(6) What have been the major problems in providing vocational programs for post-secondary and adult students?

One hundred percent of the administrators surveyed responded that lack of funding and facilities was the major problem in providing vocational education programs for post-secondary and adult students.

(7) What do you see as the major strengths of the area vocational school programs?

The fact that the area vocational school can offer more programs than LEAs, and scheduling flexibility at the area vocational school were given by a number of administrators as the major strengths of the area vocational school programs. Other strengths mentioned were: broad offerings, cooperative relationship with the local education association, devoted and well-qualified instructors, strong employment placement, the AVS eliminates duplication of facilities and equipment, the integration of secondary students in adult situations, curriculum based on actual business and industry analysis.

(8) What do you see as the major weakness in the area vocational school programs?

Administrators responding to this question, reported lack of funding for appropriate facilities and equipment as a major weakness of the area vocational programs. Other weaknesses included: transportation, which included travel time and travel costs; scheduling conflicts with the cooperating schools; stiff general education requirements at the home high school; lack of proper counseling; and need for an internal vocational education philosophy.

(9) What are the major formal channels for communication between AVS and cooperating schools?

When asked what the major formal channels for communication between the AVS and the cooperating schools were, one hundred percent of the

administrators responded that periodic meetings between counselors, teachers, and administrators at the AVS and the cooperating schools were held. Some administrators responded that formal records of attendance are sent to the cooperating schools on a daily basis. Other methods of communication included: letters informing LEAs of changes of procedures, student progress reports, constant contact by telephone, and administrators of cooperating schools serving on advisory councils to the AVS.

(10) What are the attendance policies for:
Secondary?

Ninety-five percent of the administrators surveyed, reported the attendance policy at the home high school provided the basis for attendance policies at the AVS. Some area vocational schools have reported attendance on a daily basis and others on a weekly basis.

Post-Secondary?

Ninety-five percent of the respondents indicated that attendance policies for post-secondary students are determined by individual instructors and/or departments.

Adult?

None of the area vocational school administrators provided a separate attendance policy for adults. Many administrators indicated that attendance policies for post-secondary were the same for adult students.

(11) What is done to each student who is failing:
Secondary?

Nearly all administrators surveyed reported that supplemental services were provided for secondary students failing a vocational program. One administrator indicated that students that were failing at the AVS were referred back to the home high school.

Post-secondary?

All respondents reported that tutorial and supplemental services were provided for post-secondary students who were failing. Guidance counseling is made available, as well as individual instruction provided by faculty.

Adult?

Adult students failing a vocational program were extended the same services as post-secondary students.

(12) In what ways do you report secondary student progress to the administration of the cooperating schools?

Nearly all administrators surveyed specified that a formal reporting process was established on a quarterly basis. The administrators indicated that an informal process was used also. This included correspondence by telephone and by mail. One AVS administrator said that they followed the reporting process established by the cooperating school district.

(13) How have you identified the needs for adult vocational education programs?

The most frequent response to this question was that the needs for adult vocational education were identified by input provided by advisory councils and committees, and communication with business, industry, and labor. Also mentioned was, needs will be met based upon personal request from the community. Two area vocational school administrators reported they conducted community surveys to determine adult vocational education needs.

(14) In your opinion, what are the major reasons for a student enrolling in a vocational education program?

Responses from AVS administrators as to why students enrolled in vocational education programs included: a desire to obtain job entry level skills, increased employment opportunities, seeking credits to graduate, and basic skill development and upgrading of skills. Some other reasons given as to why students enrolled in a vocational education program were: career exploration, to get away from home high school, students are turned off by traditional high school approach and are seeking something more relevant, and reputation of area vocational schools and vocational programs.

Summary of Survey Results for
Area Vocational School Counselors

(1) What services do you provide to:
Secondary students?

The most frequent responses to this question included actual counseling of students and maintaining a working relationship with cooperating high school counselors. Many counselors reported they provided tutorial services, referral services, job development services, material modification, assessments and evaluations, and information about vocational programs to the home high schools.

Post-secondary students?

Services provided post-secondary students included job placement assistance, personal and social counseling, materials modification, referral services, and various testing.

Adult students?

There was minimal response to this question. Those counselors that did respond indicated that the services provided post-secondary students were also provided to the adult students.

(2) What are the strengths and weaknesses of the vocational education program?

Strengths--Secondary

Responses to this question in order of frequency given were:

- Quality of instructors.
- Cooperation/interaction between the AVS and the cooperating school.
- Quality equipment and facilities.
- Diversity of programs and large program offerings.
- Availability of counseling, media specialists, special services, and administrative and staff support.

Weaknesses--Secondary

In studying the impact of AVS delivery systems, this researcher attempted to ascertain the counselors views as to existing weaknesses within the system. In reviewing the responses provided by the counselors, it was noticed that very few commonalities existed. Each counselor

provided weaknesses or what they considered areas of improvement particular to their individual schools. Since no commonalities can be drawn from the responses, a brief listing of these responses is provided.

- Distance causes logistic problems with communications.
- Low placement potential in certain programs.
- Lack of shop space.
- Programs are perpetuated without review.
- Poor articulation between education and future job.
- Poor job placement.
- May not be keeping pace with labor market in terms of new programs.
- Many secondary students have the skills to compete with post-secondary and adult students.
- Satellite concept is working but communication is a problem.
- Students come to AVS without counseling from AVS or home high school.
- Some instructors at the AVS are not high school student oriented.
- Distance and travel time.

Strengths--Post-secondary

Quality of instructors and equipment and facilities were cited as the major strengths of the vocational education program. Other strengths mentioned were broad and flexible course offerings, available counseling and support service, and job placement services.

Weaknesses--Post-secondary

Major weaknesses of post-secondary vocational education programs as perceived by AVS counselors included: lack of funding for equipment and instructor salaries, failure to offer more off-campus programs, institutional system not flexible enough to accommodate needs of rural service area, and lack of support staff for adults.

Strengths--Adult

AVS counselors were questioned about their perceptions of the adult vocational education programs offered by the area vocational school. In a number of cases, the counselors could not differentiate between post-secondary students and adult students. Consequently, many

respondents indicated that the major strengths and weaknesses they provided for post-secondary were inclusive of adult vocational programs.

Counselors we spoke with consistently emphasized the quality of instruction, equipment, and facilities as the major strengths of adult vocational education programs.

Weaknesses--Adult

The cost of transportation, and lack of facilities were mentioned as weaknesses of the adult program at the AVS.

(3) How are students recruited from feeder schools?

Nearly all the counselors we surveyed reported they were involved in the recruitment process. Each area vocational school's recruitment methods varied to some extent, depending on the type of school they were. Some commonalities included: (1) AVS counselors visiting cooperating school counselors, faculty, and students; (2) arrange campus visits for students from local high schools; (3) basic public relations programs (i.e. brochures, films, slide-tape presentations, newspaper articles, letters to parents, etc.) Many counselors felt that word-of-mouth by students attending the AVS provided their greatest recruitment.

(4) What types of students enroll in vocational education programs?

Because of the wide range of types of area vocational schools involved in this study, the researcher could draw no common inferences from the responses given by the AVS counselors. A majority of counselors felt that the characteristics of the vocational education student were no different than any other student.

(5) What types of career education experiences does the AVS provide?

The following is a list of career education experiences provided by the area vocational schools that responded.

- Guest speakers from industry.
- Field trips to business and industry.
- Host career fair at AVS or cooperating school.
- Provide a shadow program for interested students.
- Administer interest inventories and other testing.
- Provide job development skills which includes writing resumes and interview techniques.

- Offer summer exploratory program for interested students.
- Operate a "career van."
- Provide career counseling.
- Make available career education resource materials.

Summary of Survey Results for
Cooperating School Administrators

(1) If you provide some program locally and contract for others, what is the rationale for deciding on which program to offer locally?

The most frequent response given by cooperating school administrators as to the rationale for deciding which program to offer locally was a desire by the local districts to maintain those programs which had been established prior to the development of the AVS systems. The programs mentioned were vocational agriculture, business and office education, distributive education, home economics, and welding.

A large number of the administrators felt the rationale for establishing new programs locally would depend on community needs and the cost of programs to operate. Many administrators indicated that newer and more expensive vocational programs would not be developed locally but contracted with to the AVS.

(2) Has the area vocational school offered any extension or satellite programs in your area in the past year?

If yes, which programs and what are your feelings about the program?

Of the total number of administrators that responded to this question, 18 indicated that the AVS had offered satellite programs in the area. In all cases, the administrators felt that the satellite programs were very good to excellent and serving the community's needs.

Twenty-eight cooperating school administrators responded that the AVS in their area was not providing satellite programs. (A few administrators reported they were not aware of any programs being offered).

(3) What do you see as major strengths of the current AVS delivery system?

Quality of instructors, programs, and facilities were the major strengths listed most frequently by cooperating school administrators. The fact that the AVS can offer vocational programs that the local schools could not economically afford was listed as another major strength.

Other strengths mentioned frequently were: broad range of vocational offerings, cooperation between local schools and the AVS, program availability with low costs to the local districts.

(4) What are the major weaknesses in the current AVS delivery system?

The administrators of cooperating schools responded strongly to this question. Nearly all those surveyed reported that scheduling conflicts between the AVS and cooperating school, transportation time and costs, and inconsistent attendance policies were the major weaknesses in the current AVS delivery system. Other weaknesses mentioned frequently were: lack of communication between AVS and cooperating schools, and the cost of programs to cooperating schools.

(5) What could be done to improve the current AVS delivery system?

A frequent response to this question was: developing a system to increase communications between the AVS and cooperating school. This included communication concerning grading policies and attendance policies. The development of a common calendar so as to alleviate scheduling conflicts was stressed as well. A number of respondents reported that there was a need for the AVS to offer satellite programs to the local schools to help curtail travel time and cost for the local schools. Other improvements mentioned were: establishing a process for local staff involvement in AVS curriculum development, and improvement of grading systems.

(6) In your opinion, what are the major reasons students enroll in vocational education programs?

A majority of administrators from cooperating schools felt that the primary reason students enrolled in vocational education programs was due to a strong career objective or career interest. Also, a desire by students to obtain a marketable skill was mentioned. Other frequent responses to this question included: career exploration, counselor referral, and students are looking for a challenge and/or opportunities not found in home high schools.

(7) For those students who do not complete a vocational education program, what do you believe are the major reasons for their dropping out of it?

The following are the reasons given by administrators as to why students drop out of vocational programs. They are listed in order of frequence given: (1) lack of interest by students, (2) changing goals and expectations by students, (3) need for students to meet general education requirements, (4) scheduling problems, (5) students are exploring careers and find that the vocational program they chose is not what they want, and (6) attendance problems.

(8) Do you feel the adult vocational education training needs are currently being met for your community?

When asked to respond to this question, 35 administrators surveyed felt that the adult vocational education needs were being met. Twenty-eight indicated they were not, 8 lacked enough information to answer the question, and 5 administrators reported that the AVSs adult vocational education needs were marginally being met.

(9) Do you feel your district is offering an adequate number of vocational education programs?

If not, what alternatives have you looked at?

Nearly three-fourths of those administrators that responded to this question felt their district was offering an adequate number of vocational education programs.

Those who felt their district was not offering an adequate number of programs provided the following alternatives: contract with an AVS or some other school district, and/or develop their own programs.

And why did you stop using the AVS?

Distance from cooperating school to the AVS was the most frequent response given as to why the cooperating schools were no longer involved with the AVS. Some districts developed their own vocational programs and therefore no longer utilized the services provided by the AVS.

Summary of Survey Results for
Cooperating School Counselors

(1) How are students selected for vocational education programs in your school?

A survey of guidance counselors of cooperating schools concerning ways or methods students are selected for vocational education programs revealed that, generally, students were selected or accepted based on the interest of the student. Some counselors responded that they assisted students in course selections. Programs with limited student/teacher ratios (distributive education) required that students formally apply and be interviewed.

(2) How are students selected for vocational education programs in area vocational schools?

Nearly three-fourths of the counselors surveyed listed a formal selection process involving established criteria and a screening process. Additional input for selection was provided by teacher and counselor recommendations. Aptitude tests and interest inventories were also mentioned as an aid in the selection process.

Other frequent responses:

a. Students must complete an application and be interviewed. Selection is then based upon: (1) student interest, (2) teacher recommendations, (3) counselor recommendations, (4) occupational objectives or career goal. Other areas for consideration included: attendance, grades, parent permission, various testing, and age or grade level.

(3) Do students receive any career education experience prior to enrolling in a vocational education program?

Most all respondents reported they had some kind of career education program at the junior high school level. Some respondents indicated career awareness or exploration at the tenth and eleventh grades. Many of the counselors considered interest inventories and other testing as a career education experience.

An overall view of this question is that there are no extensive career education programs or career education experiences made available.

(4) Are students provided with any testing services?

Almost all counselors surveyed reported they provided testing services. A variety of tests are administered to the students depending on student need and/or school districts involved. Tests frequently mentioned included:

- Iowa Test of Educational Development
- Armed Services Vocational Apptitude Battery
- General Aptitude Testing Battery
- Kuder Interest Inventory
- Ohio Vocational Interest Survey
- California Test of Basic Skills

(5) Describe the types of students in vocational education programs.

- Vocational students seem to be more goal oriented and concerned with their future.
- Vocational students are less academically inclined than other students--"middle to lower half of class standing."
- All types of students; cross section; can't really label or identify them.
- Students that are not college bound.

(6) Do you have any communication with counselors or job development specialists at the AVS?

Most of the counselors surveyed reported they had communications with the counselors and/or job development specialists at the AVS. Much of the communication is done by telephone, some by mail, and some by periodic scheduled meetings.

(7) What is your general impression of the AVS program?

- Mostly good to excellent.
- Felt the AVS provided an important part of the school systems.
- Gives those students who would normally not have graduated a place to go.
- Keeps students in school.

(8) What do you feel are the major reasons students enroll in vocational education programs?

When asked what are the major reasons students enroll in vocational education programs, a majority of the counselors reported that students enrolled in order to prepare for a career of their choice. The students were interested in a particular area and wanted training. Some of the counselors indicated that the students took vocational education programs to avoid academics; an "easy way out."

(9) What do you feel are the major reasons students do not complete a vocational education program once they start it?

A majority of the counselors gave "loss of interest" or changing career objectives as the major reason students did not complete vocational programs once they have started. Some counselors cited that students that dropped out of a vocational program, often dropped clear out of school. Other reasons given for students not completing the vocational program included: students accepting employment, scheduling conflicts, and students discover that the program wasn't what they really wanted.

(10) How are students recruited for the AVS vocational education program?

Recruitment through such formal methods as brochures, newsletters, slide/tape presentations, field trips, and guest speakers were the most frequent responses given by the counselors when asked how students were recruited for the AVS vocational programs.

Other ways in which students learned about the vocational programs at the AVS included: word-of-mouth, guidance by school counselors, and course descriptions in the curriculum guide.